



EC TO EASY

vol. 2

advanced word usage analysis

Academic Writing Guideline Book

EC TO EASY

vol. 2

advanced word usage analysis

SOURCES

Fischer, E.P., Sherman., M.D., McSweeney,J.C., Pyne, J.M., & Owen., R.R., Dixon., L.B. (2015). Perspectives of Family and Veterans on Family Programs to Support Reintegration of Returning Veterans With Posttraumatic Stress Disorder. *Spirituality in Clinical Practice*. 2(1), 5-17.
<http://dx.doi.org/10.1037/ser0000033>.

Murayama, Kou., Pekrun, E., Suzuki,M., Marsh, H.W., Lichtenfed, S. (2016). Don't Aim Too High for Your Kids: Parental Overaspiration Undermines Students' Learning in Mathematics. *Journal of Personality and Social Psychology*. 111(5), 766-779. <http://dx.doi.org/10.1037/pspp0000079>.

Khattra, Jasmine., Angus, L., Westra,H., & Macaulay, C., Moertl,K., CXonstantio, M. (2017). Client Perceptions of Corrective Experiences in Cognitive Behavioral Therapy and Motivational Interviewing for Generalized Anxiety Disorder: An Exploratory Pilot Study. *Journal of Psychotherapy Integration*. 27 (1). 23-34. <http://dx.doi.org/10.1037/int0000053>

Analysis done by :

1. Hanif Setyawan
2. Haula Taqya
3. Kenia Suci Adristi
4. Kuni Aisyah Habibah
5. Lulu'ul Jannah
6. Nisa Salsabila
7. Nurul Baidlo
8. Ratri Arista
9. Royyan Akmal Dharma
10. Septika Cintya
11. Siti Afifa C.

Assisted by :

1. Hastinia Apriasari
2. Monica Geovanni
3. Muhammad Rafi
4. Nur Shofaa Inarah
5. Rosiana
6. SalsabillaDesy R.
7. Rizal Luthfan
8. Seruni Dewi F.
9. Shafira Anissa
10. Stefani Kharisma Wijaya
11. Yasminnuha Jauharini
12. Fakhirah Inayaturobbani
13. Jingga Anggun Permani
14. Isnaini Rochmah
15. Kanza Qotrunnada
16. Ariska Ayu S.

Edited and Compiled by :

Veronica Widi Handoyowati

**ENGLISH STUDIO
FACULTY OF PSYCHOLOGY
UNIVERSITAS GADJAH MADA
2018**

PREFACE

This is our second project of academic writing guideline book for enhancing your academic English writing. We continued working in detail related to the vocabulary usage. Our excitement is beyond our expectation while working on this since our main goal is to be meaningful in making the world to be a better place by narrowing the knowledge sharing limitations and boundaries, among them are language and writing skills. Whenever we could share our knowledge, experience, and research globally through the professional writing, we believe that we could give more impacts through the good work done.

Same as our first project (EC to Easy Academic Writing Guideline Book Volume 1), we worked hard with the strong support system from all the members of EC and Miss Vero as well. Not forget to mention and to thank to those who worked meticulously in editing the table, highlighting the words, checking the example sentences from the referred journals, and highlighting the journals – Afifa, Kuni, Ratri, Lulu', Bai, and Haula- and those who worked with practical jobs in designing the cover and printing –Nisas, Kenia, and Septi-. The last but not least Kak Royyan and Kak Hanif were two seniors who patiently assisted us in checking the word class on the journal and finding the synonym for common usage.

This masterpiece is not a close-ended work, however. There were only three journals used as the reference and we still need to add more entries in the future to enrich the wordlist. As the semester goes, we are going to add the vocabularies continuously referring to more journals.

Writing would be easy when we ink it, not only think about it over the time. Keep on working and creating. A very good luck!

English Community

Guidelines

This volume delivers the advanced vocabulary used in Academic Writing clustered based on the word class –Noun, Verb, Adjective, and Adverb- in context found in journals published by American Psychology Association.

Each cluster has the common words and the advanced words found in Journal and the meaning in Bahasa with the example of the sentences from the journal. They are displayed in the table with two different colors of font, black and blue. The blue one shows the advanced words found in the journal.

We hope that the display is clear and easy to follow.

ADJECTIVES				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
1.	ambiguous	ambigu, tidak pasti, dwimakna.	double-edged	<p>This finding may reflect a more competitive atmosphere in higher-track schools—in these schools, parental aspiration may be helpful to some extent, but parental overaspiration could easily turn into excessive pressure to achieve (see Murayama & Elliot, 2012, for the <i>double-edged</i> effects of competitive climate).</p> <p>Given these long-standing research traditions in both psychology and sociology, it is rather surprising that the possible <i>double-edged</i> consequences of parental aspiration have not been scrutinized in empirical work.</p>

↑

The word used commonly
(although could be used in
journal too)

↑

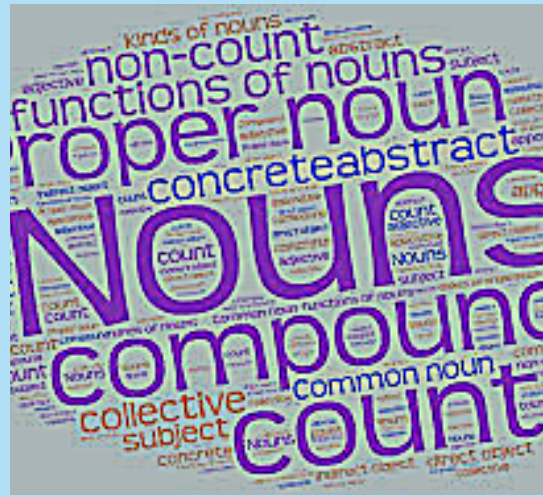
The advanced word
found in journal

↑

The example of the sentences in
the journal

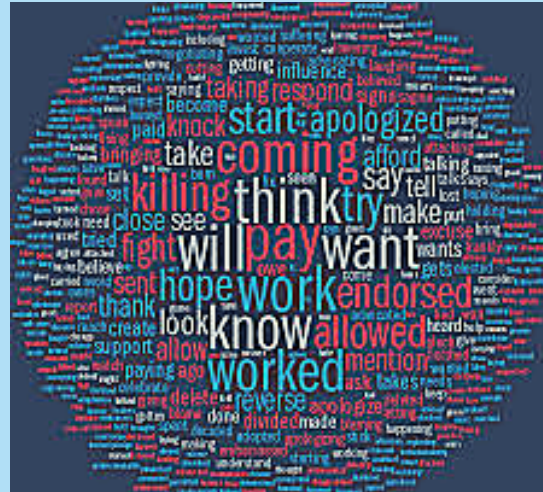
Contents

1	Preface
2	Guidelines
4-44	Word analysis Journals



4-5 The Introduction of Noun

6-14
The advanced words of noun from journals



15 The Introduction of Verb

16-32
The advanced words of verb from journals



33 The Introduction of Adjective

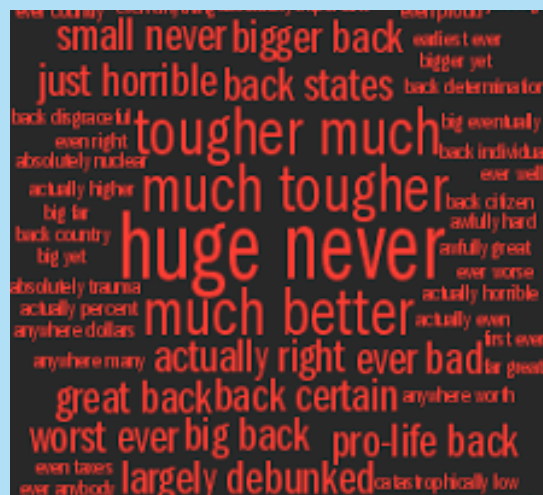
34-40
The advanced words of adjective from journals

JOURNALS ATTACHED

Perspectives of Family and Veterans on Family Programs to Support Reintegration of Returning Veterans With Posttraumatic Stress Disorder

Don't Aim Too High for Your Kids: Parental Overaspiration Undermines Students' Learning in Mathematics

Client Perceptions of Corrective Experiences in Cognitive Behavioral Therapy and Motivational Interviewing for Generalized Anxiety Disorder: An Exploratory Pilot Study



41 The Introduction of Adverb

42-44
The advanced words of adverb from journals

NOUN

Noun function as the subject (doer) or object in a sentence and object of prepositions

Here are the examples:

1. The *earth's crust* has constantly changed since its *formation*, as life has since its first *appearance*.
2. The *collision* released about 100 million times more *energy* than the more recent *Chicxulub impact* that is believed to have caused the *extinction* of the *dinosaurs*.
3. More *youngsters* feel challenged to adopt the trending *acts* in the *movie* or *music video clip* resulting the *accident cases* raised in the last 3 years.

There are original dictionary forms of noun, for instance *earth, crust, energy, impact, dinosaurs*, and many more, and there are nouns with suffixes. The suffixes showing the nouns are as follow:

Noun Person

Suffix	Examples	The use in the sentence
-ee	awardee, payee, internee	They were officially <i>internees</i> , rather than prisoners, and life, although monotonous and full of deprivation, was not brutal.
-er/-or	perpetrator, benefactor,	Despite of his ability to have more opulent life, he chooses to be <i>benefactor</i> particularly for animal saving.
-ist	evangelist, philanthropist,	In the old time, the <i>evangelists</i> competed to share the good news, war victory, to the king to get their freedom.
-ian	civilian, technician, veterinarian	The rampage <i>civilian</i> protested the use of the close proximity land for mass garbage disposal.
-eer	auctioneer, volunteer, engineer	The artists today tend to be the <i>auctioneers</i> for both economy and charity motive.
-ess	mistress, hostess, goddess, duchess	She used to be the <i>schoolmistress</i> during the second world war for the children of the orphan.

Noun Thing

Suffix	Examples	The use in the sentence
-age	footage, postage, wreckage	The clip shows the <i>footage</i> of the kids trapped in the cave.
-al	arrival, burial, deferral	The judge stated the <i>deferral</i> of the case since the defendant was under severe psychologic trauma.
-ance/-ence	reliance, existence, appearance	The mothers of the autism children could cope the parenting stress because they have strong <i>reliance</i> to accept specialty of the kids.
-dom	boredom, freedom, kingdom	Being in the crowd does not guarantee the absence of <i>boredom</i> .
-hood	childhood, brotherhood, livelihood	Working in this city provides convenient <i>livelihood</i> .

-ism	capitalism, Marxism, socialism	<i>Socialism</i> had become the political force in this nation.
-logy	trilogy, anthropology, biology	The <i>trilogy</i> of this puppet art comprised hundred scene each.
-our/-or	demeanor, behavior, neighbor	Youngsters' <i>misbehaviors</i> could not be judged abruptly as delinquency since they are growing in different era.
-ment	compartment, adjustment,	This train has exclusive <i>compartment</i> even for standard class.
-ness	robustness, fitness, fullness	Some examiners doubt the <i>robustness</i> of the findings.
-ry	robbery, ministry, entry	At this cabinet, he at first held the <i>ministry</i> of education.
-ship	spaceship, partnership, ownership	They are still arguing about the <i>ownership</i> of the yacht.
-sion/- xion/- tion	comprehension, complexion, definition	The <i>complexion</i> of the issue raises the brutality among the citizens.
-th	strength, warmth, depth	The title of the study does not show the <i>depth</i> of understanding of humanity.
-ty	clarity, flexibility, dignity	The women movements seek for the <i>dignity</i> buried by the oppressions.

NOUNS				
No	Common Usage	Meaning in Bahasa Indonesia	Advance suggested words	Word in context
1	strength, power	kekuatan	robustness	<p>As the negative effect of children’s academic achievement on parental overaspiration seems somewhat weaker than the negative effect of parental overaspiration (i.e., effects of achievement on aspiration were not statistically significant in some of the analyses), further research is needed to examine the <i>robustness</i> and psychological mechanisms of these reverse effects.</p> <p>To demonstrate the <i>robustness</i> and generalizability of our findings, we also attempted to replicate the main findings of the study with another large sample of U.S. parents and children.</p> <p>These results replicate the main results on the negative effects of overaspiration based on the PALMA data, demonstrating the <i>robustness</i> and cross-cultural generalizability of our findings.</p>
2	acceptation, presence, addition	penyertaan, kehadiran	inclusion	<p>Reliable change index (Jacobson & Truax, 1991) analyses of the PSWQ (Meyer et al., 1990) scores at posttreatment were conducted to determine the outcome status categorization of the CBT-only and MI-CBT client for <i>inclusion</i> in the current study.</p> <p>Both groups strongly supported <i>inclusion</i> of family members in programs to facilitate veterans’ postdeployment readjustment and reintegration into civilian life.</p> <p>Participants uniformly and enthusiastically supported <i>inclusion</i> of family and friends in VA programs to facilitate postdeployment readjustment and reintegration into civilian life.</p>
3	adaptation	penyesuaian diri kembali	readjustment	<p>Interviews addressed perceived needs related to veterans’ <i>readjustment</i> to civilian life, interest in family involvement in joint veteran/family programs, and desired family program content.</p> <p>Both groups strongly supported inclusion of family members in programs to facilitate veterans’ postdeployment <i>readjustment</i> and reintegration into civilian life.</p>

NOUNS				
No	Common Usage	Meaning in Bahasa Indonesia	Advance suggested words	Word in context
4	change	perubahan	shift	Findings indicated that both clients reported positive <i>shifts</i> in their experience of anxiety and increased agency in interpersonal relationships.
5	highlight, importance	penekanan, perhatian utama	emphasis	<p>Although family and veteran perspectives were similar, family members placed greater <i>emphasis</i> on parenting-related issues and the kinds of support they and their children needed during and after deployment.</p> <p>Participants' <i>emphasis</i> on the importance of seamless support for veterans and family from predeployment through postdeployment will remain critical into the future as U.S. military personnel are deployed to new combat zones.</p>
6	briefness	keringkasan (sesuatu yang ringkas/singkat)	brevity	While these findings provided an interesting window into clients' perceptions of postsession change in CBT, the analyses were limited by the <i>brevity</i> of postsession written accounts and the absence of information regarding client pretreatment diagnosis and outcome status at treatment termination and follow-up.
7	difference	perbedaan	distinction	As such, this study sample thus represents an opportunity to elucidate key distinctions between the types of changes clients experienced in therapy, such as <i>distinctions</i> between symptom level and gaining <i>*expertise</i> in CBT skills changes, versus higher order shifts in experience or understanding of the self, events, or relationships (i.e., CEs).
8	distance	jarak, celah	gap	In order to help address these methodological <i>gaps</i> in future studies, Constantino, Angus, Friedlander, Messer, and Heatherington (2011) codeveloped a posttreatment interview protocol called Patients' Perceptions of Corrective Experiences in Individual Therapy (PPCEIT).

NOUNS				
No	Common Usage	Meaning in Bahasa Indonesia	Advance suggested words	Word in context
9	drop, degrade	penurunan	slope	<p>Importantly, a latent change variable (e.g., γ_{xt}) is a function of (a) a constant change effect of an overall <i>slope</i> factor (Sx), (b) an autoproportional effect (γ_x) of a latent factor representing the same variable at the previous time point (x_{t-1}), (c) a coupling effect ($\gamma_{y;x}$) of a latent factor representing the other variable at the previous time point (y_{t-1}), and (d) an effect of disturbance (γ_t).</p> <p>A preliminary analysis indicated that the variance of the aspiration <i>slope</i> factor and the covariance between the aspiration intercept and mathematical achievement <i>slope</i> factors were small, and that the small size of these estimates caused improper solutions in the basic model and subsequent more complicated models tested later.</p> <p>The variance of the intelligence <i>slope</i> factor and the covariance between the intelligence intercept and math achievement <i>slope</i> factors were again fixed to zero.</p>
10	adaptation	penyesuain diri	attunement	<p>The MI spirit is a client-centered relational stance involving emphatic <i>attunement</i>, collaboration, <i>evocation</i>, and respect for the client's autonomy (Angus, Watson, Elliott, Schneider, & Timulak, 2015).</p>
11	group	grup, kelompok	cohort	<p>This finding was unexpected; with an average age in the late 30s, participants belong to a <i>cohort</i> that is generally comfortable with and adept in using technology.</p>

NOUNS				
No	Common Usage	Meaning in Bahasa Indonesia	Advance suggested words	Word in context
12	hope	harapan	aspiration	<p>Previous research has suggested that parents' <i>aspirations</i> for their children's academic attainment can have a positive influence on children's actual academic performance.</p> <p>These previous studies may lead people to think that there is nothing to question about the beneficial effects of holding high <i>aspirations</i> for their children.</p> <p>Possible negative effects of parental <i>overaspiration</i>, however, have found little attention in the psychological literature.</p> <p>Employing a dual change score model with longitudinal data from a representative sample of German school children and their parents ($N = 3,530$; Grades 5 to 10), we showed that parental <i>aspiration</i> and children's mathematical achievement were linked by positive reciprocal relations over time.</p>
13	lack	kekurangan	dearth	<p>The gap in knowledge about how best to engage family members in care for PTSD, especially with respect to the newest generation of returning veterans (Institute of Medicine, 2012; Monson et al., 2009), may arise in part from the relative <i>dearth</i> of published information on family members' own perspectives and preferences.</p>
14	choice	pilihan, kesukaan	preferences	<p>Although family involvement in mental health care is increasing in the U.S. Department of Veterans Affairs (VA) system, little is known about family members' <i>preferences</i> for services.</p> <p>Responses to paper-and-pencil questions about <i>preferences</i> for program logistics are summarized in Table 5.</p>
15	manner, behavior, attitude,	perilaku, tingkah laku	demeanor	<p>In addition, Deb reported that the therapist possessed a "very warm <i>demeanor</i> and personality," which helped increase her trust in the therapy process and relationship.</p>

NOUNS				
No	Common Usage	Meaning in Bahasa Indonesia	Advance suggested words	Word in context
16	note, report,	catatan, laporan	account	<p>Tables 2 and 3 present the core themes and subcategories that emerged from the qualitative analysis of Deb and Martha's posttreatment <i>accounts</i> of their therapy experiences.</p> <p>The properties in this subcategory emerged from Martha's <i>account</i> in which she spoke about realizing the extent to which she was "criticizing herself on the inside" and trying to "measure up to an unrealistic standard."</p> <p>This pilot study utilized a grounded theory analysis to identify core themes in clients' posttherapy <i>accounts</i> of shifts experienced in CBT or MI-CBT for GAD.</p>
17	object	objek	artifact	<p>To ensure that the obtained findings were not an <i>artifact</i> produced by other variables, we conducted the same set of control variable analyses as with the aspiration data.</p> <p>These results indicate that our findings are not an <i>artifact</i> of using difference scores to operationalize parental overaspiration.</p>
18	participation	partisipasi, keterlibatan	involvement	<p>Lastly, our study participants uniformly and enthusiastically supported family <i>involvement</i> in a joint veteran/family program.</p> <p>Providers may wish to facilitate family <i>involvement</i> in such activities (e.g., fishing derbies, basketball, and outdoor sports) as a vehicle for practicing interpersonal skills and decreasing social isolation.</p>
19	privacy	kerahasiaan	confidentiality	<p>The pseudonym "Deb" was given to the client who completed CBT-only treatment and the pseudonym "Martha" was given to the client who completed MI-CBT treatment to preserve <i>confidentiality</i> and <i>*anonymity</i>.</p>
20	privacy	kerahasiaan (tanpa nama)	anonymity	<p>The pseudonym "Deb" was given to the client who completed CBT-only treatment and the pseudonym "Martha" was given to the client who completed MI-CBT treatment to preserve <i>*confidentiality</i> and <i>anonymity</i>.</p>

NOUNS				
No	Common Usage	Meaning in Bahasa Indonesia	Advance suggested words	Word in context
21	probability, possibility, chance	kemungkinan	likelihood	Conversely, interactions with unsupportive partners are associated with lower <i>likelihood</i> of seeking treatment (Institute of Medicine, 2013; Meis, Barry, Kehle, Erbes, & Polusny, 2010) and poorer treatment outcomes (Makin-Byrd, Gifford, McCutcheon, & Glynn, 2011), and a stressful environment can adversely affect an individual's ability to benefit from PTSD treatment (Tarrier, Sommerfield, & Pilgrim, 1999).
22	question	pertanyaan	inquiry	A shared consensus on what is corrective, what gets corrected, and the mechanisms that underlie meaningful corrective shifts for clients in psychotherapy has nonetheless eluded psychotherapy researchers and practitioners, perhaps because the construct has traditionally been framed in psychodynamic terms, limiting the scope of research <i>inquiry</i> into the nature of corrective experiences (CEs) in therapy.
23	recall (feeling, memory)	pengingatan kembali	evocation	The MI spirit is a client-centered relational stance involving empathic attunement, collaboration, <i>evocation</i> , and respect for the client's autonomy (Angus, Watson, Elliott, Schneider, & Timulak, 2015).
24	recommendation	saran, rekomendasi	referral	All OKC veteran participants were recruited through clinician <i>referral</i> to the study. Programs and clinics that primarily treat adults rather than families (e.g., the VA health care system) may form partnerships with community providers and/or be prepared with <i>referrals</i> for their families.
25	result	hasil	outcome	CEs differ from positive <i>outcomes</i> of therapy in that CEs are novel, personally significant, surprising, disconfirming of past experiences, and/or can have a significant impact on the clients' understanding of the self, the world, and intra- and interpersonal patterns, along with concrete shifts in their thoughts, feelings, and behaviors.

NOUNS				
No	Common Usage	Meaning in Bahasa Indonesia	Advance suggested words	Word in context
26	achievement	pencapaian	acquisition	For clients engaged in CBT, five key themes emerged from the qualitative analysis of postsession accounts addressing <i>what</i> changed in therapy sessions: acquisition and use of new skills, recognition of hope, a more positive sense of self, specific changes in behavior (such as reduction in psychological symptoms or a shift in interpersonal patterns), and new cognitive perspectives on life and interpersonal relationships.
27	rest	sisia	remainder	Throughout the remainder of this paper, we use the term corrective experience to indicate this broader, pantheoretical definition proposed by Castonguay and Hill (2012).
28	similarity	kesamaan	commonality	What is notable here is that while there were many commonalities in Deb and Martha's accounts of increased hopefulness, differences were apparent in their perceptions of what their roles were in maintaining shifts from therapy.
29	skill	keterampilan	expertise	As such, this study sample thus represents an opportunity to elucidate key distinctions between the types of changes clients experienced in therapy, such as distinctions between symptom level and gaining expertise in CBT skills changes, versus higher order shifts in experience or understanding of the self, events, or relationships (i.e., CEs).
30	starting point	titik awal	baseline	The small sample size limits generalization, and systematic differences in age, education level, and comorbid diagnoses at baseline between the CBT and MI-CBT clients, as well as therapist differences, may have partially accounted for the findings. Deb was a 28-year-old Caucasian female with a postsecondary degree who had a comorbid diagnosis of major depression, panic disorder, and social phobia at baseline .

NOUNS				
No	Common Usage	Meaning in Bahasa Indonesia	Advance suggested words	Word in context
31	stop	penghentian	termination	While these findings provided an interesting window into clients' perceptions of postsession change in CBT, the analyses were limited by the brevity of postsession written accounts and the absence of information regarding client pretreatment diagnosis and outcome status at treatment termination and follow-up.
32	supporter	pendukung	advocate	CBT therapists actively take on the role of change advocate , whereas MI therapists facilitate the client to explore their own thoughts and feelings about change, helping the client become a more effective advocate for his or her own change.
33	ten years	10 tahun	decade (over the past decade)	Over the past decade , the VA has systematically expanded efforts to involve family members in the care of veterans (Glynn, 2013).
34	trust	kepercayaan	reliance	Feeling confident in sustaining progress accomplished in therapy through reliance on inner self-efficacy.
35	uncertainty	ketidak-pastian	ambivalence	The MI-CBT client (Martha) received four sessions of MI followed by 11 sessions of CBT, integrated with MI techniques when markers of ambivalence and resistance emerged. The MI treatment consisted of principles and methods outlined by Miller and Rollnick (2002), targeting ambivalence about worry and worry-related behaviors.

NOUNS				
No	Common Usage	Meaning in Bahasa Indonesia	Advance suggested words	Word in context
36	use	penggunaan, pemanfaatan	utilization	Despite the interest expressed by veterans in family-involved services and the focus of VA programs on topics and formats of interest, one of the challenges faced in the VA's ongoing transition to more family-centered care has been underutilization of family-involved programs for veterans with PTSD (Institute of Medicine, 2014; Meis et al., 2012).
	*under-use	*kurang pemanfaatan	*under-utilization	
37	value	nilai	merit	Although they were not the focus of the study, participants' remarks during the interviews about veterans' reintegration experience and the goals veterans endorsed on the questionnaire merit comment because they provide context for participants' program content preferences.
38	form	bentuk	format	Despite the interest expressed by veterans in family-involved services and the focus of VA programs on topics and formats of interest, one of the challenges faced in the VA's ongoing transition to more family-centered care has been under-utilization of family-involved programs for veterans with PTSD (Institute of Medicine, 2014; Meis et al., 2012).

VERB

Verb conveys an action, an occurrence, and a state of being.

Here are the examples:

- a. The western countries *fought* to eradicate malaria and a small step, using bed net, and finally *gave* significant huge impact on the decrease number of the case.
- b. An expert *confirmed* that there *is* no such bad reader but bad reading habit. Just like other skills in life, fast reading *is* a skill that *could be* learnt.

There are verbs in original form and there are also verbs with signifiers at the end of the word.

The suffixes showing the verbs are:

Suffixes	Examples	The use in the sentence
-ate	dominate, irritate, perpetuate	The liberal party <i>has dominated</i> the voice in the legislature board in the first round of the election.
-en	strengthen, widen, shorten	The retaining wall <i>strengthens</i> the land position and avoids the landslide during rainy season.
-ify	edify, beautify, modify	The youth today <i>are edified</i> enough in the school but not in society.
-ise/-ize	immortalize, eternize, recognize	It is hardly believe that scientist in this age <i>are</i> ambitiously <i>immortalizing</i> human tissue for further research in the next future.

Still, there are numerous verbs in their original dictionary form and those adverbs are needed to learn thoroughly by examples.

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
1.	agree, allow	menyetujui, mengijinkan	consent <i>p. consented</i> <i>pp. consented</i>	A total of 47 veterans and 36 family members <i>consented</i> and were interviewed; 34 veterans and 29 family members declined to participate.
2.	analyze	mengamati dengan teliti	scrutinize <i>p. scrutinized</i> <i>pp. scrutinized</i>	Given these long-standing research traditions in both psychology and sociology, it is rather surprising that the possible <i>double-edged</i> consequences of parental <i>aspiration</i> have not been <i>scrutinized</i> in empirical work.
	<i>passive:</i> to be analyzed	diamati dengan teliti		
3.	appear	muncul	emerge <i>p. emerged</i> <i>pp. emerged</i>	For clients engaged in CBT, five key themes <i>emerged</i> from the qualitative analysis of postsession accounts addressing what changed in therapy sessions: acquisition and use of new skills, recognition of hope, a more positive sense of self, specific changes in behavior (such as reduction in psychological symptoms or a shift in interpersonal patterns), and new cognitive perspectives on life and interpersonal relationships. Selecting a client from each treatment condition for this pilot study allowed an initial comparison of the impact of treatment differences that <i>emerged</i> in the results to be explored in future larger samples.
4.	discuss	memperbincangkan, mendiskusikan, memperdebatkan	debate <i>p. debated</i> <i>pp. debated</i>	The definition and nature of corrective emotional experiences <i>has been</i> extensively <i>debated</i> and theorized (Palwarini, 2010) since Alexander and French's original publication in 1946.
	<i>passive:</i> to be discussed	diperbincangkan, didiskusikan, diperdebatkan		

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
5.	ask, question	menanyakan	<p>inquire <i>p.</i> inquired <i>pp.</i> inquired</p>	<p>While previous posttherapy interview protocols have investigated clients' retrospective perceptions of psychotherapy is unique in that it addresses not only what clients <i>perceive</i> to be corrective about their experiences in psychotherapy but also <i>inquires</i> about their own personal understanding of how those changes occurred.</p> <p>The fourth and final section of the PPCEIT interview protocol <i>inquires</i> about any other meaningful experiences in therapy and the client's experience of participating in the interview.</p>
	explore	menanyakan lebih dalam, menyelidiki		
6.	associate, affiliate	berhubungan	<p>aligned <i>p.</i> aligned <i>pp.</i> aligned</p>	Closely <i>aligned</i> with the desire for information was a desire for skills to handle challenges related to PTSD and reintegration.
7.	avoid	menghindari	<p>elude <i>p.</i> eluded <i>pp.</i> eluded</p>	A shared consensus on what is corrective, what gets corrected, and the mechanisms that underlie meaningful corrective shifts for clients in psychotherapy <i>has</i> nonetheless <i>eluded</i> psychotherapy researchers and practitioners, perhaps because the construct has traditionally been framed in psychodynamic terms, limiting the scope of research inquiry into the nature of corrective experiences (CEs) in therapy.
8.	express, present	menyampaikan	<p>convey <i>p.</i> conveyed <i>pp.</i> conveyed</p>	The interview transcripts were first divided into meaning units, which are text segments that <i>convey</i> a single topic or focus.
9.	change, become different	berubah	<p>shift <i>p.</i> shifted <i>pp.</i> shifted</p>	The second and third sections invite clients to share their experiences of what <i>shifted</i> in therapy and how these meaningful shifts came about, respectively.
10.	choose, pick	memilih	<p>recruit <i>p.</i> recruited <i>pp.</i> recruited</p>	Second, all participants <i>were recruited</i> from two facilities in two South-Central states.
11.	continue	meneruskan	<p>hand on <i>p.</i> handed on <i>pp.</i> handed on</p>	"But they actually have to <i>hands-on</i> figure something out."

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
12.	collect, gather	mengumpulkan	solicit <i>p.</i> solicited <i>pp.</i> solicited	Client posttreatment accounts were solicited in the context of a larger RCT (Westra et al., 2016) of CBT versus CBT integrated with MI for GAD
	<i>passive:</i> to be collected, to be gathered	dikumpulkan		
13.	construct	menciptakan, membuat	compose <i>p.</i> composed <i>pp.</i> composed	Non-Hispanic Blacks composed the largest ethnic group, followed by non-Hispanic Whites.
14.	continue, carry on,	melanjutkan	sustain <i>p.</i> sustained <i>pp.</i> sustained	She felt confident in sustaining the progress in therapy by learning and applying CBT tools.
15.	correct, improve	memperbaiki, membetulkan	repair <i>p.</i> repaired <i>pp.</i> repaired	To describe how patients repair maladaptive interpersonal patterns in the context of transference-focused, psychodynamic therapy sessions.
16.	block	menghalangi	hinder <i>p.</i> hindered <i>pp.</i> hindered	Each interview began with a general question to elicit discussion of what had helped and what had hindered participants' readjustment following the veteran's most recent deployment.
17.	decide	menentukan	determine <i>p.</i> determined <i>pp.</i> determined	Reliable change index (Jacobson & Truax, 1991) analyses of the PSWQ (Meyer et al., 1990) scores at posttreatment were conducted to determine the outcome status categorization of the CBT-only and MI-CBT client for inclusion in the current study.
18.	describe	menjelaskan, mendefinisikan	define <i>p.</i> defined <i>pp.</i> defined	Family was defined broadly as "anyone you would select to take part in a program with you," including relatives, significant others, and adult friends who are "as close to you as family."
	<i>passive:</i> to be described	dijelaskan, didefinisikan		
19.	develop	meningkatkan	advance <i>p.</i> advanced <i>pp.</i> advanced	The current research aimed to advance our understanding of the relations between parents' aspiration and their children's academic achievement by addressing the number of critical issues earlier
20.	direct, deliver	address	Addressed <i>p.</i> addressed <i>pp.</i> addressed	Correspondence concerning this article should be addressed to Ellen P. Fischer, Center for Mental Healthcare and Outcomes Research,

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
21.	discover	menemukan, mengemukakan	Elicit <i>p. elicited</i> <i>pp. elicited</i>	This study <i>elicited</i> the perspective of returning Afghanistan and Iraq war veterans.
22.	get, gain	memperoleh, mendapatkan	derive <i>p. derived</i> <i>pp. derived</i>	This core category includes clients' descriptions of <i>deriving confidence</i> from changes accomplished in therapy and growing optimism about the future.
23.	differentiate	membedakan	distinguish <i>p. distinguished</i> <i>pp. distinguished</i>	Our research implies that it is essential to <i>distinguish</i> between "parental <i>aspiration</i> " and "parental expectation" to empirically understand the effects of parents' beliefs on their children.
24.	do	melakukan	administer <i>p. administered</i> <i>pp. administered</i>	For example, friedlander and colleagues (2012) <i>administered</i> the ppceit <i>interview</i> protocol to investigate client ces in one good-outcome client engaged in short-term dynamic psychotherapy.
	<i>passive:</i> <i>to be done</i>	dilakukan		At each grade level, the palma math achievement test and a parental <i>questionnaire were administered</i> toward the end of the school year during the same day

VERB				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
25.	do	melakukan	conduct p. conducted pp. conducted	<p>Heatherington, Constantino, Friedlander, Angus, and Messer (2012) <i>conducted</i> a <i>multisite study</i> to investigate clients' (N76) first person accounts of ces immediately after every fourth therapy session.</p> <p>We initially intended to <i>conduct</i> focus group <i>interviews</i> only. However, the competing demands (e.g., work, school, child care) facing potential participants made an individual interview option essential.</p> <p>Echoing this initiative, Cummings et al. (2012) <i>conducted</i> a <i>literature review</i> to evaluate the effectiveness of intervention programs that focused on attitudes (including educational aspiration) and academic attainment.</p> <p>As the data included only two time points and parental reports were obtained only at the baseline assessment, we <i>conducted</i> a simple lagged regression <i>analysis</i>.</p>
	<i>passive:</i> <i>to be done</i>	dilaksanakan, dilakukan		<p>The publicly available database comes from a large-sample U.S. longitudinal study of 10th graders in 2002 and 12th graders in 2004, and this is the fourth in a series of <i>longitudinal studies that was conducted</i> by the National Center for Educational Statistics.</p> <p><i>Semistructured qualitative interviews were conducted</i> with 47 veterans receiving care for posttraumatic stress disorder at the Central Arkansas Veterans Healthcare System or Oklahoma City VA Medical Center and 36 veteran-designated family members.</p> <p><i>The sampling and the assessments were conducted</i> by the Data Processing and Research Center (DPC) of the International Association for the Evaluation of Educational Achievement (IEA).</p>

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
26.	do	melakukan	administer <i>p.</i> administered <i>pp.</i> administered	<p>For example, friedlander and colleagues (2012) <i>administered</i> the ppeit <i>interview</i> protocol to investigate client ces in one good-outcome client engaged in short-term dynamic psychotherapy.</p> <p>At each grade level, the palma math achievement test and a parental <i>questionnaire</i> <i>were administered</i> toward the end of the school year during the same day</p>
	<i>passive:</i> <i>to be done</i>	dilakukan		
27.	equal; match	sejajar dengan, sama dengan	parallel <i>p.</i> paralleled <i>pp.</i> paralleled	<p>Checklist responses <i>paralleled</i> comments made during the qualitative interviews and are presented in table 2.</p> <p>This difference <i>was also paralleled</i> in their descriptions of how they perceived ces to have occurred.</p>
	<i>passive:</i> <i>to be equaled,</i> <i>to be matched</i>	disejajarkan dengan, disamakan dengan		
28.	expand	memperluas, memperlebar	inflate <i>p.</i> inflated <i>pp.</i> inflated	It is also worth noting that our work examined intergenerational relations between parental reports and children's actual academic achievement—this design feature enabled us to control for any systematic method or response bias, which typically substantially <i>inflates</i> estimated <i>effects</i> (podsakoff, mackenzie, lee, & podsakoff, 2003).
29.	explain	menjelaskan dengan lebih rinci, menguraikan	elaborate <i>p.</i> elaborated <i>pp.</i> elaborated	However, they focused on parental expectation and did not directly Examine the effects of parental aspiration—as we will late <i>elaborate this distinction</i> is of particular theoretical importance to understand the dynamic parental– children relationships.
30.	express (by repeating what others' said)	menyuarakan, menyampaikan, mengutarakan	echo <i>p.</i> echoed <i>pp.</i> echoed	Family members <i>echoed</i> veterans' desire that, including children, receive more information about PTSD.

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
31.	finish, complete	menyelesaikan	accomplish p. accomplished pp. accomplished	<p>The majority of the properties in this core category represent martha's responses in which she described how gaining awareness of her underlying beliefs and interpersonal patterns helped her <i>accomplish meaningful shifts</i> in therapy.</p> <p>This subcategory reflects martha's responses; she reported increased confidence about the <i>positive shifts</i> she <i>accomplished</i> in therapy as well as taking responsibility in terms of creating and sustaining these shifts: ...</p>
32.	fulfil, meet	memenuhi, cocok	comply	<p>While this core theme is representative of a positive outcome of the clients' therapeutic experiences, the subcategories within the theme do not <i>comply</i> with the pantheoretical definition of ces (castonguay & hill, 2012).</p>
33.	get	mendapatkan	obtain p. obtained pp. obtained	<p>Using large, intergenerational samples from germany and the united states, multiwave study designs, and dual-change score modeling, we <i>obtained support</i> for the proposed <i>reciprocal*</i> temporal ordering between parental <i>aspiration</i> and children's academic mathematical performance in a methodologically <i>rigorous*</i> manner.</p>
	<i>passive:</i> to be gotten	didapatkan		<p>After complete description of the study to participants, <i>written informed consent was obtained.</i></p> <p>As the data included only two time points and <i>parental reports were obtained</i> only at the baseline assessment, we <i>*conducted</i> a simple lagged regression analysis.</p>

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
34.	get	mendapatkan	<p>gain p. gained pp. gained</p> <p><i>*note:</i> in the example, the form of gain is in V-ing (gaining), that is gerund functioned as Noun.</p>	<p>In martha's accounts of how ces occurred, she noted working hard at <i>gaining</i> a deeper understanding of herself and finding her own answers.</p> <p>The majority of the properties in this core category represent martha's responses in which she described how <i>gaining</i> awareness of her underlying beliefs and interpersonal patterns helped her accomplish meaningful shifts in therapy.</p> <p>Veterans and family members expressed a desire for the same four types of program content: information, practical skills, support, and <i>gaining</i> perspective on each other's experience.</p>
35.	get, obtain	mendapatkan	<p>elicited p. elicited pp. elicited</p>	<p>This study <i>elicited</i> the perspective of returning afghanistan and iraq war veterans.</p>
36.	give result, result	menghasilkan	<p>yield p. yielded pp. yielded</p>	<p>Parental <i>aspiration yielded</i> the largest effect size in relation to academic performance.</p>
37.	group	mengelompokkan	<p>cluster p. clustered pp. clustered</p>	<p>The properties were further <i>clustered</i> into categories in order to explain the properties' descriptive content</p>
	<i>passive:</i> to be grouped	dikelompokkan		
38.	happen	terjadi	<p>occur p. occurred pp. occurred</p>	<p>This difference was also <i>*paralleled</i> in their descriptions of how they <i>*perceived</i> CEs to have <i>occurred</i>.</p> <p>Similarly, questions in the how shifts <i>occur</i> domain probe for specific moments within therapy and the therapeutic relationship that lead to shifts, which is unique to the PPCEIT interview protocol.</p>

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
39.	have goal, purpose	bertujuan	aim p. aimed pp. aimed	<p>The current research <i>aimed</i> to advance our understanding of the relations between parents' aspiration and their children's academic achievement by <i>*addressing</i> the number of critical issues earlier (see earlier discussion).</p> <p>Specifically, the present study <i>aimed</i> to identify preliminary evidence for the validity of the updated, integrative, pantheoretical definition of CE and potential themes to inform a future larger study on CEs in the same clinical sample.</p>
40.	have intention to, intent	bermaksud	aim p. aimed pp. aimed	We further <i>aimed</i> to <i>replicate*</i> the main findings with another data set.
41.	help	membantu	aid p. aided pp. aided	Combining focus group and individual data <i>aided</i> in reaching saturation (rubin & rubin, 2012).
42.	improve, increase boost	meningkatkan	enhance p. enhanced pp. enhanced	<p>From a practical perspective, this evidence suggests that it may be important to <i>enhance</i> parents' aspirations to promote children's academic performance (jeynes, 2011).</p> <p>Therapists in the rct self-selected the training and delivery of the treatment condition to <i>enhance</i> their fidelity to the mi-cbt or cbt treatment protocols.</p> <p>Family members mentioned both the need for veterans to develop skills in structuring and managing their own lives and the need for both parties to <i>enhance</i> their parenting skills more frequently than they mentioned a need for interpersonal and communication skills.</p>

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
43.	influence	mempengaruhi	affect p. affected pp. affected	Reintegration into civilian life is an ongoing process that often continues to <i>affect</i> veterans and their families over a considerable period of time postdeployment. These findings provide empirical evidence that the extent to which parents want their children to perform well at school not only affects children's growth in mathematics achievement but also is influenced by children's previous math achievement (Zhang et al., 2011).
44.	introduce, propose, present	mengemukakan, memperkenalkan, menyampaikan (pandangan, ide)	posit p. posited pp. posited	Specifically, they <i>posited</i> that when psychodynamic therapists provide an opportunity to reexperience and understand early emotional conflicts in the context of a safe, responsive therapeutic relationship, clients begin to challenge and revise negative beliefs and expectations about themselves and others.
45.	know, realize	mengetahui, menyadari	recognize p. recognized pp. recognized	Participants <i>recognized</i> that that would necessarily involve the DoD as well as the VA and ideally, other sectors of the community such as schools, civilian primary-care providers, and employers.
46.	live, exist within	ada, tinggal	reside p. resided pp. resided	This difference may reflect key elements of the MI spirit, which emphasizes the view that resources and motivation for change <i>reside</i> within the client (Miller & Rollnick, 2002).
47.	look for the answer, search the answer	mencari jawaban tentang	address p. addressed pp. addressed	Interviews addressed perceived needs related to veterans' readjustment to civilian life, interest in family involvement in joint veteran/family programs, and desired family program content. Interview data were analyzed using content analysis and constant comparison.
48.	open, release, let go,	membuka, membebaskan, melepaskan	vent p. vented pp. vented	So she let me <i>vent</i> . I really needed it (she could be open and feel easy in talking about what she felt like she really needed it).

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
49.	point, direct	merujuk pada	address <i>p.</i> addressed <i>pp.</i> addressed	<p>The current research aimed to advance our understanding of the relations between parents' aspiration and their children's academic achievement by <i>addressing</i> the number of critical issues earlier (see earlier discussion).</p> <p>To <i>address</i> longitudinal change and reciprocal effects of parental <i>aspiration</i> and mathematics achievement, a bivariate dual-change score model (mcardle & hamagami, 2001) using structural equation modeling was applied.</p>
50.	plan	berencana, bermaksud	intend <i>p.</i> intended <i>pp.</i> intended	We initially <i>intended</i> to conduct focus group interviews only.
51.	push, support	mendorong	encourage <i>p.</i> encouraged <i>p.</i> encoraged	<p>Outpatient clinicians at CAVHS and OKC were asked to inform potentially eligible veterans about the study in person or by mail or telephone and to <i>encourage</i> them to contact project personnel.</p> <p>For example, during 2008, the U.K. Government identified aspiration as a policy focus to improve students' engagement and academic achievement, and this initiative <i>encouraged</i> a number of educational intervention programs that aimed to enhance parental (and children's) aspiration (Lupton & Kintrea, 2011).</p>
52.	put, place, position	menempatkan,	posit <i>p.</i> posited <i>pp.</i> posited	This model <i>posited</i> aspiration to be a crucial intervening variable that can explain intergenerational educational and occupational mobility (Blau & Duncan, 1967), thus adding perspectives on "soft" psychological factors to the "hard" structural relationship between SES and educational attainment.

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
53.	see, know, understand	melihat, mengetahui, memahami	perceive <i>p.</i> perceived <i>pp.</i> perceived	<p>The remainder of the interview focused on how participants felt VA programs for veterans and families had or could have helped them deal with readjustment and with the veteran's PTSD, the content that would be most useful in such a program, and <i>perceived</i> obstacles to participation (see table 6).</p> <p>As shown in table 3, veterans and family members <i>perceived</i> a need for skills training in seven areas: living with a person with PTSD, interpersonal relationships and communication, structuring and managing daily life, parenting, trust and friendship, family members' coping with their own emotions, and anger management.</p>
54.	lessen	mengurangi	buffer <i>p.</i> buffered <i>pp.</i> buffered	The students <i>were</i> partially <i>buffered</i> from transitional stress by their higher English proficiency
	<i>passive:</i> to be lessened	dikurangi		
55.	refuse, reject	menolak	decline <i>p.</i> declined <i>pp.</i> declined	A total of 47 veterans and 36 family members <i>*consented</i> and were interviewed; 34 veterans and 29 family members <i>declined</i> to participate.
56.	repeat	mengulangi	replicate <i>p.</i> replicated <i>pp.</i> replicated	To <i>demonstrate*</i> the robustness and generalizability of our findings, we also <i>attempted*</i> to <i>replicate</i> the main findings of the study with another large sample of U.S. Parents and children.
	<i>passive:</i> to be repeated	diulang		Finally, our results <i>were replicated</i> with another large-sample longitudinal data set.

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
57.	say	mengatakan, mengutarakan	express <i>p.</i> expressed <i>pp.</i> expressed	Veterans and family members expressed a desire for the same four types of program content: information, practical skills, support, and gaining perspective on each other's experience (see tables 3 and 4 for themes, subthemes, and illustrative quotations).
58.	say	mengatakan, menyatakan	note <i>p.</i> noted <i>pp.</i> noted	As one male veteran noted , [they need] not just awareness, but tools as well....our families have already noticed that we've come home....and we have issues... [they need] tools to understand what to do, tools on how to deal with the stress that is on me, and how to deal with it in a [respectful] way...
59.	say, mention	mengatakan, menyebutkan	remark <i>p.</i> remarked <i>pp.</i> remarked	Several participants remarked on the value of couples' weekends for reestablishing their relationship, working on joint problem-solving skills, and helping family members better understand the deployment experience.
60.	seek, search	mencari, meneliti	investigate <i>p.</i> investigated <i>pp.</i> investigated	Specifically, we applied the same dual change score model with parental overaspiration (i.e., parental aspiration relative to parental expectation) as an alternative predictor variable, and investigated whether parental overaspiration would negatively predict the change in academic achievement over time (and vice versa). Building on this integrative research initiative, the primary goal of the present exploratory study was to investigate the presence and nature of ces in two clients' firsthand accounts

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
61.	show	menunjukkan	address p. addressed pp. addressed	<p>In a recent effort to <i>address</i> this gap in the Psychotherapy research and practice literature, castonguay and hill (2012) proposed a pantheoretical, integrative definition of ces in psychotherapy: “ones in which a person comes to understand or experience affectively an event or a relationship in a different or unexpected way” (p. 5).</p> <p>The ppceit interview protocol (constantino et al., 2011) is unique in that it <i>addresses</i> not only what clients perceive to be corrective about their experiences in psychotherapy but also <i>inquires*</i> about their own personal understanding of how those changes occurred.</p>
62.	show	menunjukkan	exhibited p. exhibited pp. exhibited	<p>More than half of the parents (57.8%) <i>exhibited</i> aspirations that matched their expectations, but more than 30% of the parents showed overaspiration.</p>
63.	show	menunjukkan	indicate p. indicated pp. indicated	<p>These results <i>indicate</i> that our findings are not an artifact of using difference scores to operationalize parental overaspiration.</p> <p>Throughout the remainder of this paper, we use the term corrective experience to <i>indicate</i> this broader, pantheoretical definition <i>proposed</i> by castonguay and hill (2012).</p>
64.	show, prove	menunjukkan, membuktikan	demonstrate p. demonstrated pp. demonstrated	<p>To <i>demonstrate</i> the robustness and generalizability of our findings, we also <i>attempted*</i> to <i>replicate*</i> the main findings of the study with another large sample of U.S. parents and children.</p>

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
65.	step back, back down	mundur	regress <i>p.</i> regressed <i>pp.</i> regressed	To address this potential problem, and to address more general concern about difference score approaches (e.g., cohen, cohen, west, & aiken, 2003), we <i>regressed</i> parental <i>aspiration</i> on parental expectation and used positive <i>residual</i> * scores as an alternative index of parental overaspiration.
66.	stress, assert	menegaskan	emphasize <i>p.</i> emphasized <i>pp.</i> emphasized	Both groups <i>emphasized</i> that preparation and support for postdeployment readjustment were needed by family members as well as service members, and should begin before deployment, continue through deployment, and be maintained for a substantial period postdeployment.
67.	suggest	mengusulkan, mengemukakan	propose <i>p.</i> proposed <i>pp.</i> proposed	In a recent effort to address this gap in the Psychotherapy research and practice literature, castonguay and hill (2012) <i>proposed</i> a pantheoretical, integrative definition of ces in psychotherapy: "ones in which a person comes to understand or experience affectively an event or a relationship in a different or unexpected way" (p. 5).
68.	mean	berarti (bahwa)	imply <i>p.</i> implied <i>pp.</i> implied	This pattern indicates that parents adjusted their aspiration rather than their Expectation over time, <i>implying</i> that the change in over aspiration scores mainly reflects change in parental aspiration
69.	support, sustain	mendukung, menyokong, menyetujui	endorse <i>p.</i> endorsed <i>pp.</i> endorsed	Several studies have shown that a majority of veterans with PTSD report interest in and <i>endorse</i> greater family involvement in treatment and believe that their family member(s) would be interested in family-centered educational and support services as well (batten et al., 2009; khaylis, polusny, erbes, gewirtz, & rath, 2011; meis et al., 2012; sayer et al., 2010).

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
70.	talk about	membicarakan, memperdebatkan	argue <i>p. argued</i> <i>pp. argued</i>	In addition, some studies used school grades as a proxy for academic achievement (e.g., neuenschwander et al., 2007), although grades have been <i>argued</i> to not be an adequate or valid measure of academic achievement (graham, 2015). Likely because of these methodological problems, the results of these longitudinal studies have been inconsistent (carpenter, 2008; goldenberg et al., 2001; zhang et al., 2011).
71.	task, ask	menugaskan meyuruh	assign <i>p. assigned</i> <i>pp. assigned</i>	Participants (N85) <i>were</i> randomly <i>assigned</i> to either receive 15 weekly sessions of CBT or four individual MI sessions prior to receiving 11 weekly CBT sessions (MI-CBT), integrated with MI as needed. A total of 19 posttherapy interviews were randomly conducted by two of the authors who were trained in the administration of the PPCEIT interview protocol (Constantino et al., 2011).
	<i>passive:</i> to be tasked to be asked	ditugaskan disuruh		
72.	tell	menyarankan	suggest <i>p. suggested</i> <i>pp. suggested</i>	This observation <i>suggests</i> that it may be the effects of the parental expectation component of parental aspiration, not parental aspiration per se, that drove the positive effects of parental aspiration observed in previous studies. In contrast, deb's account <i>suggested</i> her dependence on therapist guidance.
73.	test	menguji	examine <i>p. examined</i> <i>pp. examined</i>	It is also worth noting that our work <i>examined</i> intergenerational relations between parental reports and children's actual academic achievement It would also be informative to <i>examine</i> how verbal accounts compare between psychotherapy clients who achieve recovery versus those clients who do not achieve recovery.
74.	the process in which interview recording(s) is/are written textually	menuliskan, mencatat (dari rekaman)	transcribe <i>p. transcribed</i> <i>pp. transcribed</i>	The interviews were audio recorded, <i>transcribed</i> , and subjected to a grounded theory analysis using qualitative research methods software, atlas.ti (muhr, 25 client corrective experiences 1997), to generate themes.

VERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Word	Word in context
75.	try	berusaha	attempt <i>p.</i> attempted <i>pp.</i> attempted	To <i>demonstrate*</i> the robustness and generalizability of our findings, we also <i>attempted</i> to <i>replicate*</i> the main findings of the study with another large sample of E.S. parents and children.
76.	worsen gradually	memperburuk (secara perlahan), mengikis	erode <i>p.</i> eroded <i>pp.</i> eroded	Persistent PTSD symptoms can also <i>erode</i> supportive relationships in other social and work settings.

ADJECTIVE

Adjective has a function as the modifier of a noun.

Here are the examples:

- a. Society is more *vigilant* on the offer in online media because hackers are becoming *niftier* today.
- b. The new year's eve revelers were attacked by a *frantic* car driver in the *central shopping* district in Japan.

There are original dictionary forms of adjective, for example *brave, tough, proud, vast, dry*, and many more, and there are also adjectives with suffixes. The suffixes showing the adjectives are as follows:

Suffix	Examples	The use in the sentence
-y	cloudy, rainy, windy, brainy, fruity, tasty, grouchy	The long queue in the middle of hot day affected the people to be so <i>grouchy</i> about performance of the on duty staffs.
-ant	vigilant, defiant, brilliant, reliant	Some people may argue that the apogee of human intelligence was when humans were not so <i>reliant</i> on technology.
-al	brutal, formal, postal, skeptical	<i>Postal</i> rates are going down sharply because now people rely on online data sending and private delivery services.
-ble (-able/-ible)	drinkable, portable, credible	The police have received the <i>credible</i> information about the location of the suspect.
-ious/-ous	meticulous, cautious, famous, nervous	They were not yet giving up on doing <i>meticulous</i> job on designing futuristic robot for disaster alarm system.
-i	Iraqi, Pakistani, Yemeni	<i>Yemeni</i> once lived separately in two Republic named Yemen Arab Republic and People's Democratic Republic of Yemen whose capital was Sanaa and Aden respectively.
-ish	British, Spanish, peevish	Sitting at the corner of the room, I was examined by the old <i>peevish</i> conceited proprietor of the Wuthering Heights.
-ian/an	Canadian, Malaysian, Peruvian	The asylum seekers are now <i>Canadian</i> after 20 years waiting.
-ese	Chinese, Japanese, Vietnamese	<i>Chinese</i> are known as hard worker and discipline people.
-ic	classic, Islamic, poetic	He explained his feeling in <i>poetic</i> tone and brought the listeners into tears.
-ive	reactive, passive, productive	People are expected to be responsive than <i>reactive</i> in coping stress.
-ful	forgetful, thoughtful, useful	He is incredibly <i>thoughtful</i> in encountering the complicated problems regarding to the accusation of blasphemy.
-less	homeless, seamless, useless	Her wedding gown was sewn by the professional tailor, so it looked <i>seamless</i> and amazingly stunning.
-en	broken, golden, wooden	The restaurant is furnished with imported <i>wooden</i> tables.
-ly	daily, monthly, yearly	Never at once she joins this event although it is held <i>monthly</i> .
-ary	budgetary, planetary, military, honorary, primary,	There are more people work as <i>honorary</i> assistant.
-ed/ V3	bored, interested, excited	Some racers were <i>excited</i> to finish the last lap smoothly.
-ing/V-ing	frightening, entertaining,	It was quite <i>frightening</i> to dwell at the cost of Indonesia for the various perils from the sea become greater.

ADJECTIVES				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
1.	ambiguous	ambigu, tidak pasti, dwimakna.	double-edged	<p>This finding may reflect a more competitive atmosphere in higher-track schools—in these schools, parental aspiration may be helpful to some extent, but parental overaspiration could easily turn into excessive pressure to achieve (see Murayama & Elliot, 2012, for the <i>double-edged</i> effects of competitive climate).</p> <p>Given these long-standing research traditions in both psychology and sociology, it is rather surprising that the possible <i>double-edged</i> consequences of parental aspiration have not been scrutinized in empirical work.</p>
2.	appearing, that appears	yang muncul	emergent	The <i>emergent</i> core themes were grouped in terms of two domains—(a) client-identified shifts in therapy and (b) clients accounting how shifts occurred in therapy—to address Research Questions a and b, respectively.
3.	attached, naturally attached (<i>past participle as adjective</i>)	yang melekat	inherent	Use of dual-change score modeling allowed us to eliminate possible confounds <i>inherent</i> in standard <i>cross-lagged</i> analysis
4.	best	yang terbaik, paling bagus	optimal	Interviews also explored participants' views on <i>optimal</i> program delivery and logistics.
5.	clear	jelas, nyata	apparent	<p>What is notable here is that while there were many commonalities in Deb and Martha's accounts of increased hopefulness, differences were <i>apparent</i> in their perceptions of what their roles were in maintaining shifts from therapy</p> <p>There is also a long line of research examining an <i>apparent</i> paradox that African American parents tend to have high <i>aspiration</i> for their children despite their poor academic achievement or low parental expectations.</p>
6.	clear (<i>past participle as adjective</i>)	jelas	marked	Participants' <i>marked</i> preference for face-to-face rather than Web-, video-, or telephone-based sessions...

ADJECTIVES				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
7.	come from, taken from (<i>past participle as adjective</i>)	yang berasal dari	derived (from)	In contrast, Martha's descriptions of attributions for shifts mainly fell under the core theme of new intrapersonal and interpersonal awareness <i>derived from</i> therapy. The grounded theory approach is a "qualitative research method that uses a systematic set of procedures to develop an inductively <i>derived</i> grounded theory about a phenomenon" (Strauss & Corbin, 1990, p. 24).
8.	connecting, relating (<i>present participle as adjective</i>)	yang berhubungan dengan	pertaining	Themes <i>pertaining</i> to clients' contribution to the change process included greater awareness and self-reflection, implementing specific techniques learned in therapy to daily life, and cooperating with the therapist (Heatherington et al., 2012).
9.	fixed, permanent	tetap	persistent	<i>Persistent</i> PTSD symptoms can also <i>*erode</i> supportive relationships in other social and work settings.
10.	continual, continuing	terus-menerus	sustained	As such, many questions still remain as to the specific relational or treatment factors in brief CBT treatment protocols that contribute to clients' <i>sustained</i> recovery from GAD.
11.	different, varied (<i>past participle as adjective</i>)	cukup bervariasi	nuanced	We feel that this limitation is far outweighed by the <i>nuanced</i> , in-depth data we were able to obtain through qualitative interviews.
12.	tended (<i>past participle as adjective</i>)	condong, cenderung	inclined	Interest in family involvement may be lower in the broader population of veterans and family because it is likely that individuals willing to take part in a study on this topic would be positively <i>inclined</i> toward family involvement.
13.	expressed (<i>past participle as adjective</i>)	dikemukakan	posed	Specifically, questions <i>posed</i> in the what shifted domain provide clients with an opportunity to identify meaningful shifts in multiple areas of their lives, such as their view of self, outlook on life, interpersonal relationships, thoughts, feelings, behaviors, and problematic patterns.
14.	familiar, close	akrab, karib	intimate	Family, especially <i>intimate</i> partners, wanted the veteran to understand what they had gone through while the veteran was deployed.

ADJECTIVES				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
15.	fast, quick	cepat	rapid	Several family focus groups turned into spontaneous support groups after the formal interviews were completed; that <i>rapid</i> bonding may be due in part to the isolation many families experience when the veteran has PTSD.
16.	finished (<i>past participle as adjective</i>)	yang diselesaikan	accomplished (<i>past participle as adjective</i>)	This core category includes clients' descriptions of deriving confidence from changes <i>accomplished</i> in therapy and growing optimism about the future.
17.	fun, enjoyable	santai dan menyenangkan	recreational	Female veterans, in particular, expressed the need for better information on programs available for women: "They need to tell you about the women's programs. . . . The only reason I found out about the women's <i>recreational</i> therapy is one of the women that's in there saw me [and approached me about it]."
19.	got, received (<i>past participle as adjective</i>)	yang didapat	obtained	To ensure that the <i>obtained</i> findings were not an artifact produced by other plausible variables, we conducted a series of analyses that included control variables
20.	harmonized, fitted (<i>past participle as adjective</i>)	selaras	aligned (<i>past participle as adjective</i>)	Closely <i>aligned</i> with the desire for information was a desire for skills to handle challenges related to PTSD and reintegration.
21.	having two variables (<i>present participle as adjective</i>)	yang mempunyai dua variable	bivariate	We again applied a <i>bivariate</i> dual-change score model to address the reciprocal relations between parental overaspiration and children's mathematical achievement.
22.	important	penting	essential	However, the competing demands (e.g., work, school, child care) facing potential participants made an individual interview option <i>essential</i> .
23.	important, serious	serius	critical	They also emphasized the <i>critical</i> importance of a supportive environment for veterans and family, including children, that would begin prior to deployment and continue for a substantial period following the veteran's return. Participants' emphasis on the importance of seamless support for veterans and family from predeployment through postdeployment will remain <i>critical</i> into the future as U.S. military personnel are deployed to new combat zones.
24.	important	penting	salient	Although deployment of U.S. military personnel to Iraq and Afghanistan is declining, the perspectives and recommendations of these returning veterans and family members remain <i>salient</i> .

ADJECTIVES				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
25.	important, significant	penting	substantial	Both groups emphasized that preparation and support for postdeployment readjustment were needed by family members as well as service members, and should begin before deployment, continue through deployment, and be maintained for a <i>substantial</i> period postdeployment.
26.	interesting (<i>present participle as adjective</i>)	menarik	appealing	Because interests vary regionally and providers may be constrained by the resources available in their programs and communities, providers would want to help their clients identify the types of activities that would be most <i>appealing</i> and most likely to strengthen bonds within the family system and with the broader community.
27.	liked more (<i>past participle as adjective</i>)	yang lebih disukai	preferred	In this study, veterans were asked specifically about their <i>preferred</i> format for a group program involving veterans and family; their responses to that question should not be generalized to other types of care.
28.	long-lasting	terus menerus, kronis, menahun	chronic	Research has shown that social and emotional support protect against development of <i>chronic</i> PTSD (Keane et al., 2006; Schnurr, Lunney, & Sengupta, 2004).
29.	main	utama	primary	Building on this integrative research initiative, the <i>primary</i> goal of the present exploratory study was to investigate the presence and nature of CEs in two clients' firsthand accounts of their experience of cognitive behavioral therapy (CBT) and CBT integrated with motivational interviewing (MI) for generalized anxiety disorder (GAD; Westra, Constantino, & Antony, 2016).
30.	mentioned before (<i>past participle as adjective</i>)	yang disebutkan sebelumnya	aforementioned	The <i>aforementioned</i> findings are also consistent with the theoretical rationale for integrating MI with more directive therapeutic approaches such as CBT to increase clients' active engagement and motivation for change in treatment (Miller & Rollnick, 2002).
31.	mutual, shared	timbang balik	reciprocal	This study tested possible <i>reciprocal</i> effects between parental expectations and U.S. students' achievement in mathematics and reading with a large, nationally representative sample and used a longitudinal design including four waves (kindergarten through 5th grade).

ADJECTIVES				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
32.	negative, harmful	merugikan, merusak	detrimental	This correlation suggests that parental overaspiration could have a <i>detrimental</i> effect on children's math achievement. More importantly, the findings also showed that parental aspiration can be <i>detrimental</i> for children's performance when aspiration exceeds expectation.
33.	only	sendiri, tersendiri	sole	Indeed, although interviews focused on how VA programs could help veterans and families with readjustment and reintegration, much of what participants described is outside the <i>sole</i> purview of the VA.
34.	opposite, negative	yang berlawanan/berkebalikan, merugikan	adverse	The current research advanced these findings by investigating the issues that have not been sufficiently considered in the existing literature: the causal ordering of aspiration and achievement and potential <i>adverse</i> effects of parental overaspiration
35.	repeated (past participle as adjective)	yang berulang	iterative	We then used the technique of constant comparison, an <i>iterative</i> process in which researchers thoroughly explore the commonalities and differences in reported experiences to promote conceptual understanding of the phenomenon of interest (Harding, 2013).
36.	rest, remains	sisanya, yang tersisa	residual	To address this potential problem, and to address more general concern about difference score approaches (e.g., Cohen, Cohen, West, & Aiken, 2003), we <i>regressed*</i> parental <i>aspiration*</i> on parental expectation and used positive <i>residual</i> scores as an alternative index of parental overaspiration.
37.	rough, hard, difficult	sulit	rigorous	We <i>obtained*</i> support for the <i>proposed reciprocal*</i> temporal ordering between parental <i>aspiration*</i> and children's academic mathematical performance in a methodologically <i>rigorous</i> manner.
38.	social (present participle as adjective)	dua orang, antar individu	interpersonal	As shown in Table 3, veterans and family members perceived a need for skills training in seven areas: living with a person with PTSD, <i>interpersonal</i> relationships and communication, structuring and managing daily life, parenting, trust and friendship, family members' coping with their own emotions, and anger management.
39.	suggested (past participle as adjective)	yang diajukan, yang disarankan	proposed	Throughout the remainder of this paper, we use the term corrective experience to <i>*indicate</i> this broader, pantheoretical definition <i>proposed</i> by Castonguay and Hill (2012).

ADJECTIVES				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
40.	skillful	terampil	adept	This finding was unexpected; with an average age in the late 30s, participants belong to a cohort that is generally comfortable with and <i>adept</i> in using technology.
41.	small	kecil	minor	Veteran participants were predominantly male, married or cohabiting, and had <i>minor</i> children at home (see Table 1).
42.	strong	kuat	robust	<p>These results were fairly <i>robust</i> after controlling for a variety of demographic and cognitive variables such as children's gender, age, intelligence, school type, and family socioeconomic status.</p> <p>These effects were <i>robust</i> across different types of analyses and after controlling for a variety of demographic and cognitive variables, including children's gender, age, intelligence, school type, and family SES.</p>
43.	suitable	yang cocok/pantas dipilih	eligible	Veterans <i>eligible</i> if they were aged 18–65 years, had served in Iraq or Afghanistan after October 2001, and had received treatment for PTSD at either CAVHS or OKC in the previous 12 months.
44.	suitable	pantas,cocok	appropriate	...as reflected in the frequency of themes and subthemes emerging from the interviews and responses to the questionnaire, quantitatively using chi-squared analysis with Yates's correction for continuity as <i>appropriate</i> .
45.	shown (past participle as adjective)	yang ditunjukkan	notable	<p>What is <i>notable</i> here is that while there were many commonalities in Deb and Martha's accounts of increased hopefulness, differences were apparent in their perceptions of what their roles were in maintaining shifts from therapy.</p> <p>Participants' marked preference for face-to-face rather than Web-, video- or telephonebased sessions is <i>notable</i> in both interview comments and questionnaire responses.</p>
46.	strong, very high	kuat	striking	The frequency with which both veterans and family expressed a desire for social activities facilitated by the VA, especially multifamily outings involving children, was <i>striking</i> .
47.	smooth	tanpa cacat	seamless	DoD and VA are working to create a " <i>seamless</i> transition" with respect to health care...
48.	significant	penting	considerable	Reintegration into civilian life is an ongoing process that often continues to affect veterans and their families over a <i>considerable</i> period of time postdeployment.

ADJECTIVES				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
49.	shared, mutual	bersama	joint	Several participants remarked on the value of couples' weekends for reestablishing their relationship, working on <i>joint</i> problem-solving skill...
50.	written (<i>past participle as adjective</i>)	tertulis	paper-and-pencil	Following each interview, we asked participants to complete an anonymous <i>paper-and-pencil</i> questionnaire addressing demographics, deployment history, and preferences regarding program structure and format.

ADVERB

Adverb functions as the modifier of verb, adjectives, and another adverb.

Here are the examples:

- a. Over the past decade, the VA has **systematically** expanded efforts to involve family members in the care of veterans (Glynn, 2013). **modifying the verb*
- b. The results showed that the negative effects of parental overaspiration on change in mathematics achievement were **robustly** consistent across genders, school types. **modifying the adjective*
- c. The result was **only** slightly different from what had been expected by the team. **modifying other adverbs*

There are original dictionary forms of adverb, for example only, really, indeed, and many more, and there are also adverbs with a particular suffix. The suffixes showing the adverbs are as follows:

Suffixes	Examples	The use in the sentence
-ly	<i>calmly, easily, quickly</i>	They quickly <u>respond</u> to the complaint regarding to the absenteeism of the employees during company annual meeting.
-ward	<i>downwards, homeward(s), upwards</i>	Unemployment will <u>continue</u> upward for much of this year.
-wise	<i>anti-clockwise, clockwise, edgewise</i>	There were so many people talking at once that I could not <u>get a word in</u> edgewise .

Still, there are numerous adverbs in their original dictionary form and those adverbs are needed to learn meticulously by examples.

ADVERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
1.	from the inside	dari dalam	internally	About a third of veterans also expressed a desire for information about current VA services and benefits, as well as how VA health care programs operate and communicate <i>internally</i> : "It's like you need a PhD in just Veterans Affairs [to figure out what services are available]...every time you look around, it's like we used to do, oh, no, it's not like that now."
2.	in detailed manner, deeply, fully	secara detail, sepenuhnya	thoroughly	We then used the technique of constant comparison, an iterative process in which researchers <i>thoroughly</i> explore the commonalities and differences in reported experiences to promote conceptual understanding of the phenomenon of interest (Harding, 2013).
3.	in opposite way, on the contrary	sebaliknya	conversely	<i>Conversely</i> , interactions with unsupportive partners are associated with lower likelihood of seeking treatment (Institute of Medicine, 2013; Meis, Barry, Kehle, Erbes, & Polusny, 2010) and poorer treatment outcomes (Makin-Byrd, Gifford, McCutcheon, & Glynn, 2011), and a stressful environment can <i>*adversely</i> affect an individual's ability to benefit from PTSD treatment (Tarrier, Sommerfield, & Pilgrim, 1999).
4.	in same portion	sama, rata	equally	Approximately 25% were aged 50 or older; the remaining 75% were <i>equally</i> divided among those in their 20s, 30s, and 40s.
5.	individually	sendiri-sendiri, terpisah	independently	To establish intercoder reliability, we used the codebook to <i>independently</i> code transcripts and discussed differences in coding until consensus was reached (Bernard & Ryan, 2010).
6.	individually	sendiri-sendiri, terpisah	separately	We repeated this process <i>separately</i> with transcripts of interviews with female veterans and transcripts of interviews with family members.
7.	mainly	utamanya, terutama,	primarily	Although MI has several directive components <i>aimed</i> at increasing motivation for change instead of <i>primarily</i> employing change strategies.

ADVERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
8.	certainly	tentunya, seharusnya	necessarily	<p>Participants recognized that that would <i>necessarily</i> involve the DoD as well as the VA and, ideally, other sectors of the community such as schools, civilian primary-care providers, and employers.</p> <p>The views expressed in this article are those of the authors and do not <i>necessarily</i> represent the views of the Department of Veterans Affairs.</p>
9.	clearly	dengan jelas	explicitly	Some focus group participants may not have commented <i>explicitly</i> on subthemes raised by others, leading to an underestimate of subtheme importance.
10.	each of	masing-masing	respectively	The second and third sections invite clients to share their experiences of what shifted in therapy and how these meaningful shifts came about, respectively.
11.	especially	khususnya, secara khusus	specifically	<p>In this study, veterans were asked <i>specifically</i> about their preferred format for a group program involving veterans and family; their responses to that question should not be generalized to other types.</p> <p><i>Specifically</i>, we first aimed to rigorously <i>examine</i> the effects of parents' <i>aspirations</i> on their children's achievement</p>
12.	especially	khususnya	in particular	<i>In particular</i> , the client undergoing integrative MI-CBT treatment reported increased confidence in her own ability to maintain positive changes posttherapy, while the CBT-only client expressed confidence in her application of CBT tools and skills to maintain therapy outcomes.
13.	exactly	tepat	precisely	We feel that this limitation is offset by our having elicited preferences about content and format from <i>precisely</i> those individuals who would be most likely to use such a program.

ADVERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
14.	firstly	mulanya, pada awalnya	initially	We <i>initially</i> intended to conduct focus group interviews only.
15.	mostly	kebanyakan, biasanya	predominantly	Family participants were <i>predominantly</i> female, married or cohabiting, and had minor children at home (see Table 1).
16.	nearly	dengan rapat	closely	<i>Closely</i> aligned with the desire for information was a desire for skills to handle challenges related to PTSD and reintegration.
17.	negatively, harmfully, undesirably	secara merugikan	adversely	* <i>Conversely</i> , interactions with unsupportive partners are associated with lower likelihood of seeking treatment (Institute of Medicine, 2013; Meis, Barry, Kehle, Erbes, & Polusny, 2010) and poorer treatment outcomes (Makin-Byrd, Gifford, McCutcheon, & Glynn, 2011), and a stressful environment can <i>adversely</i> affect an individual's ability to benefit from PTSD treatment (Tarrier, Sommerfield, & Pilgrim, 1999).
18.	often	sering, kerap	frequently	Among veterans, interpersonal and communication skills were the most <i>frequently</i> mentioned of these three. The need for skills training to help families living with a person with PTSD was mentioned most <i>frequently</i> by both veterans and family members.
19.	possibly	dengan mungkin sekali	potentially	Outpatient clinicians at CAVHS and OKC were asked to inform <i>potentially</i> eligible veterans about the study in person or by mail or telephone and to encourage them to contact project personnel.
20.	more and more	makin bertambah	increasingly	...practice guidelines <i>increasingly</i> emphasize family involvement in mental health care for PTSD (Foa, Keane, & Friedman, 2009; Ursano et al., 2004; U.S. Department of Veterans Affairs & U.S. Department of Defense, 2010).

ADVERBS				
No	Common usage	Meaning in Bahasa Indonesia	Advanced Suggested Word	Word in context
21.	only	hanya	solely	Family participants were recruited <i>solely</i> from among the individuals designated by participating veterans.
22.	quickly	secara cepat	rapidly	In addition, participants were often aware that VA and DoD were working in many of these areas, and that conditions and programs were evolving <i>rapidly</i> .
23.	sharply	dengan lugas, tegas, tajam, pedas	poignantly	One male veteran put it so <i>poignantly</i> : "And how in the hell are we going to talk to our families if we've lost ourselves?"
24.	strongly	secara kuat	robustly	The results showed that the negative effects of parental overaspiration on change in mathematics achievement were <i>robustly</i> consistent across genders, school types, and SES...
25.	technically, in systematic order	secara sistematis	systematically	Over the past decade, the VA has <i>systematically</i> expanded efforts to involve family members in the care of veterans (Glynn, 2013).
26.	together, all together	secara bersama-sama	jointly	After reaching consensus on code names, we <i>jointly</i> developed an initial codebook incorporating definitions for each code (Miles, Huberman, & Saldana, 2014; Rubin & Rubin, 2012).
27.	usually	secara umum, biasanya	generally	While research evidence <i>generally</i> support the efficacy of CBT for GAD (seeCovin, Ouimet, Seeds, & Dozois, 2008), a substantial number of clients fail to fully recover bytreatment termination and follow-up (Westen & Morrison, 2001). The results showed that there were <i>generally</i> significant positive effects of parental <i>aspiration</i> on mathematics achievement regardless of children's gender and family
28.	widely	secara luas	broadly	Family was defined <i>broadly</i> as "anyone you would select to take part in a program with you," including relatives, significant others, and adult friends who are "as close to you as family."

Guidelines

All the highlighted words are the words analyzed that can be found in the analysis table in the previous sections.

The color of the highlight shows the **word class**.

The **green highlighted words** are Nouns.

The **red highlighted words** are Verbs.

The **purple highlighted words** are Adjectives.

The **blue highlighted words** are Adverbs.

Perspectives of Family and Veterans on Family Programs to Support Reintegration of Returning Veterans With Posttraumatic Stress Disorder

Ellen P. Fischer

Central Arkansas Veterans Healthcare System, North Little Rock, Arkansas; University of Arkansas for Medical Sciences

Michelle D. Sherman

South Central Mental Illness Research, Education and Clinical Center, Oklahoma City, Oklahoma; University of Oklahoma Health Sciences Center

Jean C. McSweeney

University of Arkansas for Medical Sciences

Jeffrey M. Pyne and Richard R. Owen

Central Arkansas Veterans Healthcare System, North Little Rock, Arkansas; University of Arkansas for Medical Sciences

Lisa B. Dixon

VA Capitol Health Care Network Mental Illness Research, Education and Clinical Center, Baltimore, Maryland; University of Maryland

Combat deployment and reintegration are challenging for service members and their families. Although family involvement in mental health care is increasing in the U.S. Department of Veterans Affairs (VA) system, little is known about family members' preferences for services. This study elicited the perspectives of returning Afghanistan and Iraq war veterans with posttraumatic stress disorder and their families regarding family involvement in veterans' mental health care. Semistructured qualitative interviews were conducted with 47 veterans receiving care for posttraumatic stress disorder at the Central Arkansas Veterans Healthcare System or Oklahoma City VA Medical Center and 36 veteran-designated family members. Interviews addressed perceived needs related to veterans' readjustment to civilian life, interest in family involvement in joint veteran/family programs, and desired family program content. Interview data were analyzed using content analysis and constant comparison. Both groups strongly supported inclusion of family members in programs to facilitate veterans' postdeployment readjustment and reintegration into civilian life. Both desired program content focused on information, practical skills, support, and gaining perspective on the other's experience. Although family and veteran perspectives were similar, family members placed greater emphasis on parenting-related issues and the kinds of support they and their children needed during and after deployment. To our knowledge, this is the first published report on preferences regarding VA postdeployment reintegration support that incorporates the perspectives of returning male and female veterans and those of their families. Findings will help VA and community providers working with returning veterans tailor services to the needs and preferences of this important-to-engage population.

Keywords: veterans, family, PTSD, service preferences

Editor's Note. This is one article of eight in a special section on Veterans and their families during reintegration after deployment.

Ellen P. Fischer, Center for Mental Healthcare and Outcomes Research, Central Arkansas Veterans Healthcare System, North Little Rock, Arkansas; Department of Psychiatry, University of Arkansas for Medical Sciences; Michelle D. Sherman, South Central Mental Illness Research, Education and Clinical Center, Oklahoma City, Oklahoma; Department of Psychiatry and Behavioral Sciences, University of Oklahoma Health Sciences Center; Jean C. McSweeney, College of Nursing, University of Arkansas for Medical Sciences; Jeffrey M. Pyne and Richard R. Owen, Center for Mental Healthcare and Outcomes Research, Central Arkansas Veterans Healthcare System, North Little Rock, Arkansas; Department of Psychiatry, University of Arkansas for Medical Sciences; Lisa B. Dixon, VA Capitol Health Care Network Mental Illness Research, Education and Clinical Center, Baltimore, Maryland; Department of Psychiatry, University of Maryland.

Michelle D. Sherman is now at the Department of Family Social Sciences, University of Minnesota, and the Minnesota Veterans Research Foundation, Minneapolis, Minnesota. Lisa B. Dixon is now at the Department of Psychiatry, Columbia University Medical Center, and the Center for Practice Innovations, New York State Psychiatric Institute, New York, New York.

The views expressed in this article are those of the authors and do not necessarily represent the views of the Department of Veterans Affairs. This project was supported by the Department of Veterans Affairs, Health Services Research and Development Service Grant DHI08-097. Special thanks go to Mary Kate Bartnik, Lakiesha Kemp, and Jeffrey Smith, and to Drs. Jeffrey Anderson, Ursula Bowling, and Yousef Fahoum for their contributions to the project.

Correspondence concerning this article should be addressed to Ellen P. Fischer, Center for Mental Healthcare and Outcomes Research, Central Arkansas Veterans Healthcare System, 2200 Fort Roots Drive, Building 58 (152/NLR), North Little Rock, AR 72114-1706. E-mail: fischerellenp@uams.edu

Posttraumatic stress disorder (PTSD) is prevalent among veterans using U.S. Department of Veterans Affairs (VA) health care services, including veterans returning from Afghanistan and Iraq. Approximately 30% of the veterans of Operation Enduring Freedom, Operation Iraqi Freedom, and Operation New Dawn who use VA health care services have been diagnosed with PTSD (Epidemiology Program, Post-Deployment Health Group, Office of Public Health, Veterans Health Administration, & Department of Veterans Affairs, 2014).

PTSD can negatively impact functioning and quality of life for both affected individuals and their family members (Monson, Taft, & Fredman, 2009). The emotional numbing, hypervigilance, and hyperarousal symptoms of PTSD increase the risk of interpersonal problems with partners and children, including divorce, intimate partner aggression, and difficulties in child rearing (Keane, Marshall, & Taft, 2006). Persistent PTSD symptoms can also erode supportive relationships in other social and work settings. Research has shown that social and emotional support protect against development of chronic PTSD (Keane et al., 2006; Schnurr, Lunney, & Sengupta, 2004). Conversely, interactions with unsupportive partners are associated with lower likelihood of seeking treatment (Institute of Medicine, 2013; Meis, Barry, Kehle, Erbes, & Polusny, 2010) and poorer treatment outcomes (Makin-Byrd, Gifford, McCutcheon, & Glynn, 2011), and a stressful environment can adversely affect an individual's ability to benefit from PTSD treatment (Tarrier, Sommerfield, & Pilgrim, 1999). Because poor family functioning and lack of social support are associated with poorer outcomes of PTSD treatment (Byrne & Riggs, 2002; Evans, Cowlshaw, Forbes, Parslow, & Lewis, 2010; Kaniasty & Norris, 2008; Keane et al., 2006; Sayer et al., 2010; Taft, Watkins, Stafford, Street, & Monson, 2011; Tarrier et al., 1999), practice guidelines increasingly emphasize family involvement in mental health care for PTSD (Foa, Keane, & Friedman, 2009; Ursano et al., 2004; U.S. Department of Veterans Affairs & U.S. Department of Defense, 2010).

Over the past decade, the VA has systematically expanded efforts to involve family members in the care of veterans (Glynn, 2013). Since 2008, the VA has required all VA medical centers to offer family consultation, couples and family therapy, and family education or family psychoeducation services for veterans with PTSD (U.S. Department of Veterans Affairs, Veterans Health Administration, 2008). This initiative is consistent with findings in the small, but growing, literature on Iraq and Afghanistan veterans' interest in greater family involvement in care. Several studies have shown that a majority of veterans with PTSD report interest in and endorse greater family involvement in treatment and believe that their family member(s) would be interested in family-centered educational and support services as well (Batten et al., 2009; Khaylis, Polusny, Erbes, Gewirtz, & Rath, 2011; Meis et al., 2012; Sayer et al., 2010). Veterans reported interest in receiving and having their family members receive information on a variety of topics including PTSD and its impact on the family, improving communication, problem solving, and other relationship-related issues (Batten et al., 2009), and Khaylis et al. (2011) found a strong preference among returning National Guard soldiers for family-based rather than individual-oriented treatment. In a study by Sayer et al. (2010), veterans expressed greater interest in receiving services and information face-to-face rather than by tele- or videoconferencing. Despite the interest expressed by veterans in

family-involved services and the focus of VA programs on topics and formats of interest, one of the challenges faced in the VA's ongoing transition to more family-centered care has been underutilization of family-involved programs for veterans with PTSD (Institute of Medicine, 2014; Meis et al., 2012). The gap in knowledge about how best to engage family members in care for PTSD, especially with respect to the newest generation of returning veterans (Institute of Medicine, 2012; Monson et al., 2009), may arise in part from the relative dearth of published information on family members' own perspectives and preferences.

This study was designed to elicit the priorities and preferences of returning veterans with PTSD and their families relevant to family involvement in care, specifically, their interest in a program focused on postdeployment readjustment and reintegration that would involve both veterans and family members, on preferred content for such a program and preferred program format(s).

Method

Participants

We recruited veterans from the Central Arkansas Veterans Healthcare System (CAVHS) and the Oklahoma City VA Medical Center (OKC). Veterans were eligible if they were aged 18–65 years, had served in Iraq or Afghanistan after October 2001, and had received treatment for PTSD at either CAVHS or OKC in the previous 12 months. We used several methods to inform potential participants about the study. Outpatient clinicians at CAVHS and OKC were asked to inform potentially eligible veterans about the study in person or by mail or telephone and to encourage them to contact project personnel. All OKC veteran participants were recruited through clinician referral to the study. At CAVHS, potential participants could also learn about the study from other participating veterans, from fliers posted at CAVHS and veterans' service organizations, or from advertisements in the local newspaper. Family participants were recruited solely from among the individuals designated by participating veterans. Family was defined broadly as "anyone you would select to take part in a program with you," including relatives, significant others, and adult friends who are "as close to you as family."

We spoke with a total of 81 veterans and 65 family members regarding participation in the study. A total of 47 veterans and 36 family members consented and were interviewed; 34 veterans and 29 family members declined to participate. Veteran participants were predominantly male, married or cohabiting, and had minor children at home (see Table 1). Non-Hispanic Blacks composed the largest ethnic group, followed by non-Hispanic Whites. Most were in their 20s or 30s (28/47; 59.6%). More than 60% of family participants were the spouses or significant others of participating veterans. Family participants were predominantly female, married or cohabiting, and had minor children at home. Approximately 25% were aged 50 or older; the remaining 75% were equally divided among those in their 20s, 30s, and 40s. Several family participants had served in the military, including five who had deployed to Iraq or Afghanistan.

After complete description of the study to participants, written informed consent was obtained. All aspects of this research were approved by the Institutional Review Boards of CAVHS and the

Table 1
Characteristics of Participants

Characteristic	Veterans (n = 47)		Family (n = 36)	
	n	%	n	%
Male	31	70.0	9	25.0
Race/ethnicity				
Native American ^a	6	12.8	2	5.6
Non-Hispanic Black	19	40.4	12	33.3
Non-Hispanic White	18	38.3	19	52.8
Other and missing	4	8.5	3	8.3
Marital status				
Married or cohabiting	27	57.4	30	83.3
Separated	5	10.6	1	2.8
Divorced	6	12.8	2	5.6
Never married	8	17.0	3	8.3
Missing	1	2.1	0	0.0
Children <18 years old in the home				
Yes	30	63.8	25	69.4
No	16	34.0	11	30.6
Missing	1	2.1	0	0.0
Veteran: Rank				
Junior enlisted	27	57.4		
Noncommissioned officer	15	31.9		
Officer	1	2.1		
Missing	4	8.5		
Family: Relation to veteran				
Spouse or significant other			22	61.1
Parent			5	13.9
Child			1	2.8
Other family member			5	13.9
Friend			3	8.3
Family: Ever served in military			9	25.0
Family: Ever deployed to Iraq or Afghanistan			5	13.9

Note. Veterans' mean age = 37.3 years (*SD* = 10.9); family participants' mean age = 39.1 years (*SD* = 13.1). Veterans' mean number of deployments to Iraq/Afghanistan = 2.0 (*SD* = 1.0).

^a Includes three veterans who self-identified as multiracial including American Indian.

University of Oklahoma Health Sciences Center and the Research and Development Committees at CAVHS and OKC.

Data Collection

We initially intended to conduct focus group interviews only. However, the competing demands (e.g., work, school, child care) facing potential participants made an individual interview option essential. We interviewed 25 veterans in six focus groups. Two focus groups included three veterans each; the other four included two, four, five, or eight veterans. We interviewed 27 family members in six focus groups. Two of these included two participants each; the remainder included four, five, six, or eight family members. We interviewed 22 veterans and nine family members individually.

The same experienced qualitative interviewers facilitated focus groups and conducted individual interviews. Interviews took place in private rooms at CAVHS or OKC between January 2010 and October 2011. Separate focus groups were conducted for male veterans, female veterans, and family members.

All interviews followed the same interview guide and covered the same topics. Each interview began with a general question to elicit discussion of what had helped and what had hindered participants' readjustment following the veteran's most recent deployment. The remainder of the interview focused on how participants felt VA programs for veterans and families had or could have helped them deal with readjustment and with the veteran's PTSD, the content that would be most useful in such a program, and perceived obstacles to participation (see Table 6).

Following each interview, we asked participants to complete an anonymous paper-and-pencil questionnaire addressing demographics, deployment history, and preferences regarding program structure and format. The questionnaire also asked veterans to complete a checklist indicating the goals that were important to them at that time. (Copies of questionnaires are available on request from the first author.)

Analyses

Audio recordings of each focus group or individual interview were transcribed verbatim, reviewed for completeness and accuracy, and entered into ATLAS.ti V5.6, a software program that facilitates management, coding, and analysis of narrative data (Muhre & Friese, 2004).

Qualitative data were analyzed using the techniques of content analysis and constant comparison (Harding, 2013). Transcripts from the first focus groups with male veterans were examined by three team members (EPF, JCM, and an interviewer) who had been present at them. Using the technique of content analysis, we read each transcript line-by-line to identify relevant words and key phrases. The team discussed the meaning of these key words and phrases. We then selected the most descriptive term for them and assigned a code name to reflect each key issue raised by participants. After reaching consensus on code names, we jointly developed an initial codebook incorporating definitions for each code (Miles, Huberman, & Saldana, 2014; Rubin & Rubin, 2012). To establish intercoder reliability, we used the codebook to independently code transcripts and discussed differences in coding until consensus was reached (Bernard & Ryan, 2010). We repeated this process separately with transcripts of interviews with female veterans and transcripts of interviews with family members. Codes capturing new issues raised by female veterans or family members were added to the codebook. This final codebook was used to analyze transcripts from both focus group and individual interviews with male veterans, female veterans, and family members.

After we had analyzed each transcript separately, we analyzed the combined transcripts for each group (male veterans, female veterans, family members). Combining focus group and individual data aided in reaching saturation (Rubin & Rubin, 2012). We then used the technique of constant comparison, an iterative process in which researchers thoroughly explore the commonalities and differences in reported experiences to promote conceptual understanding of the phenomenon of interest (Harding, 2013). We used this technique to explore commonalities and differences in the perspectives of male and female veterans and of veterans and family. We then combined related codes into subthemes and related subthemes into broader, more abstract themes to better understand differences and similarities in perspective across groups.

We also compared the perspectives of veterans and family members, as reflected in the frequency of themes and subthemes emerging from the interviews and responses to the questionnaire, quantitatively using chi-squared analysis with Yates’s correction for continuity as appropriate. Quantitative analyses were performed using the Opus 12 Foundation Chi-Square Calculator (http://www.opus12.org/Chi-Square_Calculator).

Results

Context and Goals

Although they were not the focus of the study, participants’ remarks during the interviews about veterans’ reintegration experience and the goals veterans endorsed on the questionnaire merit comment because they provide context for participants’ program content preferences. Both veterans and family members remarked on veterans’ relationship problems with partners, children, friends, and employers; issues with trust, motivation, and isolation; problems with anger management, substance use, and other risky behaviors; physical health problems; and the challenges of dealing with systems like the Department of Defense (DoD) and the VA. On the self-administered questionnaire, veterans checked goals that were “important to [them] right now.” Checklist responses paralleled comments made during the qualitative interviews and are presented in Table 2.

Program Content

Veterans and family members expressed a desire for the same four types of program content: information, practical skills, support, and gaining perspective on each other’s experience (see

Table 2
Goals Endorsed by Veterans on Anonymous Questionnaire, in Descending Order of Frequency

I would like to (Check all that apply)	n	%
Be able to trust people more	41	87.2
Communicate better with my family and friends	41	87.2
Have less tension and fewer arguments with people	39	83.0
Learn how to relax	39	83.0
Have my family/friends understand better what I’m going through	38	80.9
Learn how to better manage my temper	38	80.9
Do more fun things/have fun hobbies	37	78.7
Get back to how I was before deployment	37	78.7
Have less stress at home	34	72.3
Learn how to solve problems more effectively	34	72.3
Feel closer to important people in my life	33	70.2
Have my family more involved in my mental health care without sacrificing my privacy	32	68.1
Help my family/friends learn to back off and stop pressuring me	30	63.8
Improve my relationship with my children	30	63.8
Manage money more effectively	26	55.3
Find a job that I can enjoy	23	48.9
Learn how to manage my medications and their side effects better	21	44.7
Figure out what to do with my free time	18	38.3
Learn ways to reduce my alcohol or drug use	16	34.0

Tables 3 and 4 for themes, subthemes, and illustrative quotations). However, details varied by group as discussed below.

Information. The majority of participants said that a family program should provide information, especially with respect to PTSD and to VA services and systems. Veterans, all of whom were or had been in treatment for PTSD, focused most heavily on getting information about PTSD to their family members. Comments like this one from a male veteran were common: “Pretty much everybody needs to understand what PTSD is You got to understand it in order to help.”

Family members echoed veterans’ desire that family members, including children, receive more information about PTSD. The fiancé of one veteran said, “I wish I would have known what PTSD was For a long period of time I thought that was an excuse he was using, you know, not to do things.” The cousin of another veteran remarked that “. . . the kids. . . . need some education on it. . . . someone else to tell the symptoms and tell, you know, what could happen and how to deal with it.”

About a third of veterans also expressed a desire for information about current VA services and benefits, as well as how VA health care programs operate and communicate internally: “It’s like you need a PhD in just Veterans Affairs [to figure out what services are available]. . . . every time you look around, it’s like we used to do, oh, no, it’s not like that now.” Female veterans, in particular, expressed the need for better information on programs available for women: “They need to tell you about the women’s programs. . . . The only reason I found out about the women’s recreational therapy is one of the women that’s in there saw me [and approached me about it].”

Practical skills. Closely aligned with the desire for information was a desire for skills to handle challenges related to PTSD and reintegration. As shown in Table 3, veterans and family members perceived a need for skills training in seven areas: living with a person with PTSD, interpersonal relationships and communication, structuring and managing daily life, parenting, trust and friendship, family members’ coping with their own emotions, and anger management. The need for skills training to help families living with a person with PTSD was mentioned most frequently by both veterans and family members. As one male veteran noted,

[They need] not just awareness, but tools as well. . . . Our families have already noticed that we’ve come home. . . . and we have issues. . . . [They need] tools to understand what to do, tools on how to deal with the stress that is on me, and how to deal with it in a [respectful] way. . . .

Although a desire for a program that includes interpersonal and communication skills, strategies for structuring and managing one’s life, and skills related to parenting were raised by both groups, veterans and family differed in the frequency with which they expressed a need for these three skill sets. Among veterans, interpersonal and communication skills were the most frequently mentioned of these three. Comments in this area included the following from a male veteran:

. . . it was probably last year I started hugging my kids . . . I was so used to like seeing Iraqi children. . . I could not get close, so if there were a class where you’re showed communication skills. Like, this is how you deal with stuff and this is how you come back and are able to make some sort of emotional attachment.

Table 3
What a Program Should Provide: Frequency of Themes and Subthemes Raised in Qualitative Interviews by Veteran and Family Participants

Theme and subtheme	Frequency					
	Veterans (n = 47)		Family (n = 36)		Total (N = 83)	
	n	%	n	%	n	%
Information	33	70.2	20	55.6	53	63.9
PTSD	27	57.4	20	55.6	47	56.9
Services and system*	15	31.9	1	2.8	16	19.3
Skills training	27	57.4	16	44.4	43	51.8
Living and coping with a person with PTSD	15	31.9	7	19.4	22	26.5
Interpersonal and communication skills	11	23.4	4	11.1	15	18.1
Structuring and managing daily life	8	17.0	6	16.7	14	16.9
Parenting-related skills ^a	4	13.3 ^a	4	16.0 ^a	8	14.5 ^a
Trust and friendship	3	6.4	3	8.3	6	7.2
Family members' coping with their own emotions	2	4.3	4	11.1	6	7.2
Anger management	2	4.3	2	5.6	4	4.8
Support*	12	25.5	17	47.2	29	34.9
For family*	5	10.6	12	33.3	17	20.5
For veterans	8	17.0	8	22.2	16	19.3
Perspective*	19	40.4	5	13.9	24	28.9
Family perspective on veterans' experience*	19	40.4	3	8.3	22	26.5
Veterans perspective on family experience	2	4.3	2	5.6	4	4.8

Note. PTSD = posttraumatic stress disorder.

^a The denominators for this item include only the 30 veterans and 25 family members with minor children in the home.

* $p < .05$.

Family members mentioned both the need for veterans to develop skills in structuring and managing their own lives and the need for both parties to enhance their parenting skills more frequently than they mentioned a need for interpersonal and communication skills. Comments like the following were common among family members:

... they should have classes where you deal with paying bills and doing just everyday things. ... a lot of veterans say that they just have a hard time going back to doing things on their own because they've been so used to being told what to do.

... if he was hearing it from somebody else, maybe it would be a little bit more clear, so I do agree on the parenting classes. I think that would ... help both of us deal with it a little better.

Support. Both groups emphasized that preparation and support for postdeployment readjustment were needed by family members as well as service members, and should begin before deployment, continue through deployment, and be maintained for a substantial period postdeployment. Participants recognized that that would necessarily involve the DoD as well as the VA and, ideally, other sectors of the community such as schools, civilian primary-care providers, and employers.

With respect to postdeployment support for family members, participants emphasized the importance of opportunities for groups of spouses/partners and groups of children to get together to offer mutual support and recognition that they were not alone in their experience. With respect to veterans, participants focused on the veterans' having a "safe" place to share their experience with other veterans, to build self-esteem, and to find spiritual and motivational support. Participants suggested a "buddy system" for veter-

ans to provide peer support, as well as a place for veterans to "hang out," exercise, and "blow off steam," whether alone or with family members.

Gaining perspective on each other's experience (perspective-taking). Veterans and family members felt that the other group did not understand what they had gone through and what they were going through. They wanted the program to help the other better understand their perspective on the deployment period as well as on the return. Veterans wanted family and friends to better understand what they had gone through ("You know, I went to war; I didn't go to summer camp") as well as what they were going through:

They needed to know what I was battling, where I was, how I felt about myself. My negative self-image which led to a lot of defensiveness. Led to a lot of guilt, angry at myself. I used to be a leader and I was able to do all these things, and then when I came back I felt like I had failed because some of my guys had died.

Veterans also wanted their family and friends to understand why they behaved in the ways they did. One male veteran put it so poignantly: "And how in the hell are we going to talk to our families if we've lost ourselves?"

Family, especially intimate partners, wanted the veteran to understand what they had gone through while the veteran was deployed. The wife of one veteran said, for example,

... I know they're over there. I know they go through a lot, but we're over here. We're paying the bills, trying to keep things going, trying not to tell them all the things going on and maybe they need to know—some of them may not understand what we're going through while they're gone.

Table 4

Desired Program Content: Illustrative Quotes From Qualitative Interviews, by Theme and Subtheme

Theme and subtheme	Illustrative quote
Information giving PTSD	<p>“. . . knowledge of what PTSD is . . . helps [family] deal with our shit.”</p> <p>“My wife keeps thinking that . . . there’s an actual cure . . . I have a hard time telling her I’m not the same person.”</p> <p>“If you just knew what to expect, that would go a long way . . . we felt like we were on the outside looking in.” (family)</p>
Services and system	<p>“They need to tell you about the women’s programs.” (OKC)</p> <p>“I didn’t know we had a women’s health clinic at the VA in Little Rock.”</p>
Skills training Living and coping with a person with PTSD	<p>“. . . teaching you how to cope.” (family)</p> <p>“. . . how to recognize your [family member’s] triggers.” (family)</p>
Interpersonal and communication skills	<p>“. . . there should be some sort of program that allows them to resocialize. Those skills that we learn in college or high school, you know, how to interact, how to make a joke . . .” (family)</p> <p>“I think to teach dating skills again . . . You got in an argument. But you’re really just scared, but you’re not going to tell you wife that you’re afraid [in public places]. You know, so, you have communication teaching, I mean I can’t even express or explain it. I just know that PTSD will eventually destroy a relationship.”</p>
Structuring and managing daily life	<p>“The hardest part is you’re in such a structured environment, then you come out in the civilian world, and . . . There’s no one telling you ‘be here at this time, do this, do that . . . you need to pay your bill . . .’ money management was really difficult for me when I first came out. And dealing with civilian authority was a little difficult too because you’re kind of like ‘what have you ever done?’</p>
Parenting-related skills	<p>“I don’t actually get anything done . . . Just show me how to complete a task . . .”</p> <p>“Teach the parent how to talk to the children about what’s going on with momma or daddy or whoever.” (family)</p> <p>“. . . when you come back home, you hear so much about ‘don’t go home and try to take over’ and ‘your wife has been doing this on her own,’ and it’s like you’re just kind of left up. Well, when do I, you know, start doing my bag? There’s really not a lot of guidance there. . . sometimes it’s hard for me to adapt.”</p>
Trust and friendship	<p>“. . . a friendship class to teach you proper friendship techniques, to teach you not to over-give yourself and hurt yourself, and you come right back into treatment.”</p> <p>“. . . when I trust you that means I trust you with my life. And that’s how I know I trust a soldier on the battlefield, but when we bring it back here. . . we have to adjust and actually know that there are different levels [of trust].”</p>
Family members’ coping with their own emotions	<p>“. . . everybody that’s associated with a service member that’s been to Iraq and come back, there’s anger. I bet you somewhere there is anger, hostility . . . let somebody explain that this is a natural process.”</p> <p>“So I’m still holding all the anger and resentment and everything because I haven’t been able to work through it. So he’s coming back [from treatment programs] trying to be a different person, but I’m still stuck where I am, so where was my help?” (family)</p>
Anger management	<p>“I think the VA should focus way more on anger management.”</p> <p>“I mean, there’s a lot of animosity, a lot of anger. We barely speak.” (family)</p>
Providing support For family	<p>“I wish they had a support group for wives or spouses or parents just to come in . . . and go, ‘This is what I’m dealing with, how do you fix that problem . . .’ I wish they had a support group for us.” (family)</p> <p>“He was having nightmares. . . it would have been great if [there] could have been a support group for him, for someone to talk to him. . . beside the parent, to let him understand what other children were going through . . .” (family)</p>
For veterans	<p>“. . . self-esteem classes. It’s almost like they lose that.” (family)</p> <p>“A place for them to blow off steam . . . where it’s not going to matter.” (family)</p> <p>“I think they should always just have somebody there that they can contact and talk to no matter what because, I think, if it wasn’t for my battle buddy . . .”</p>
Understanding the other’s experience Understanding the veteran’s experience	<p>“How did she feel when that mortar came in . . .?”</p> <p>“We want [family] to be in on the meeting so you can understand . . . see, a lot of veterans aren’t going to sit here and tell you the truth that they miss their wives/ they miss their husbands and that’s why they come back with tempers because they felt like they weren’t missed.”</p>

Table 4 (continued)

Theme and subtheme	Illustrative quote
Understanding the family's experience	<p>“ . . . trying to deal with a completely different person with frequent mood swings. It is an absolute roller coaster and extremely taxing for me and my three children trying to deal with ‘who is this person living in our house, and how do we respond and how do we deal with it?’” (family)</p> <p>“ . . . we basically went on with our life. . . . we’ve got work to do and things are still going on at home I think we all change because it’s, it’s an ordeal. . . . they’ve got a part but, by golly, we’ve got a part too in this coming-home deal.” (family)</p>

Note. All quotations are from veterans unless otherwise indicated. PTSD = posttraumatic stress disorder; OKC = Oklahoma City VA medical center; VA = U.S. Department of Veterans Affairs.

Some veterans as well as some family members commented that it might be easier for their respective family member or veteran to hear and understand their perspective if it came from someone outside their own family.

Program Format and Logistics

Interviews also explored participants' views on optimal program delivery and logistics. Suggestions about how VA should deliver program content fell into two main categories: “classes/programs” for provision of information and skills training and “outings/group activities.” Outings and group activities were seen as a way for couples and families to reestablish relationships, in part by having fun together. Family members especially emphasized the importance of including fun activities for children that would allow them to express their feelings and share their experiences. Several participants remarked on the value of couples' weekends for reestablishing their relationship, working on joint problem-solving skills, and helping family members better understand the deployment experience. Veterans, who generally had more experience with PTSD-focused therapies than family members, talked about the utility of role-playing, joint problem-solving exercises, team-building exercises, and vet-to-vet support for conveying program content and achieving program goals. One male veteran suggested activities like the following for couples:

I would probably administer like some type of scenario where they have to work together to do something, not just, you know, talking and how you feel. But they actually have to hands-on figure something out. So that means you have to work with each other to reconnect.

Responses to paper-and-pencil questions about preferences for program logistics are summarized in Table 5. Participants' marked preference for face-to-face rather than Web-, video- or telephone-based sessions is notable in both interview comments and questionnaire responses.

Discussion

To our knowledge, this is the first published report on preferences for VA postdeployment reintegration support that incorporates both the perspectives of returning Iraq and Afghanistan veterans and those of the veterans' own family members and close friends. Participants uniformly and enthusiastically supported inclusion of family and friends in VA programs to facilitate postdeployment readjustment and reintegration into civilian life. When

asked about optimal program content, participants described the information and skills training they considered essential to successful readjustment and reintegration. They also emphasized the critical importance of a supportive environment for veterans and family, including children, that would begin prior to deployment and continue for a substantial period following the veteran's return. Family members generally echoed veterans' perspectives on the kinds of information, skills, and support needed by veterans. However, they placed greater emphasis on parenting-related issues and the kinds of support they and their children needed during and after deployment to help them understand and support the veteran in his or her readjustment. Several family focus groups turned into spontaneous support groups after the formal interviews were completed; that rapid bonding may be due in part to the isolation many families experience when the veteran has PTSD.

Implications of study findings for clinical practice within and outside the VA include the following:

1. Reintegration programs should include a family component and should specifically target the following domains: information about the origin, symptoms, and impact of PTSD; skills for veterans and families in fostering healthy relationships and effectively coping with PTSD; and perspective-taking for veterans and families to improve understanding of and empathy for each other's situation. Many family education programs address these issues and offer guidance for providers wishing to offer such services (e.g., Operation Enduring Families: <http://www.ouhsc.edu/OEF>; LifeGuard: <http://www.mirecc.va.gov/apps/activities/lifeguard>).

2. When working with returning veterans who have children, providers will want to consider supplementing individual and/or couples therapy with programs that involve the children. The preference for such involvement is clear from the great majority of veterans (83%) and families (86%) who indicated on the questionnaire that it would be “very important” to include teenagers and younger children in some family program activities (see Table 5). Participants also expressed a desire for skills in learning how to talk with their children about the veteran's PTSD. These outcomes can be achieved in a variety of ways, including family therapy, psychoeducation for children, bibliotherapy, and skills training for both veteran and nonveteran parents around how to manage the issue with their children. Programs and clinics that primarily treat adults rather than families (e.g., the VA health care system) may form partnerships with community providers and/or be prepared with referrals for their families.

Table 5
Responses to Format and Structure Items on Anonymous Questionnaire

Question	Veterans (<i>n</i> = 47)			Family members (<i>n</i> = 36)		
	<i>n</i>	%		<i>n</i>	%	
		Total	Replies		Total	Replies
Would you prefer to gain information and skills in . . . ?						
Veteran and family groups	8	17.0	17.0	7	19.4	19.4
Veteran-only groups	1	2.1	2.1	4	11.1	11.1
Individual sessions with a provider	6	12.8	12.8	7	19.4	19.4
A combination of all above	28	59.6	59.6	15	41.7	41.7
Another combination	4	8.5	8.5	3	8.3	8.3
In what ways would you like to gain information and skills . . . ? ^a						
Interactive activities in groups/classes	28	59.6		26	72.2	
Veteran-led discussion and support	34	72.3		22	61.1	
Talks/oral presentations	21	44.7		10	27.8	
Written and/or Internet materials	16	34.0		14	38.9	
Other	4	8.5		1	2.8	
Acceptable meeting formats ^a						
In-person meetings	40	85.1		32	88.9	
Videoconferencing	14	29.8		7	19.4	
Teleconferencing	17	36.2		10	27.8	
Internet	11	23.4		17	47.2	
In-person + phone, e-mail, or Internet	23	48.9		18	50.0	
Other	1	2.1		4	11.1	
The one format you would like best . . .						
In-person meetings	32	68.1	76.2	22	61.1	71.0
Videoconferencing	1	2.1	2.4	0	0.0	0.0
Teleconferencing	3	6.4	7.1	2	5.6	6.5
Internet [*]	0	0.0	0.0	3	8.3	9.7
In-person + phone, e-mail, or Internet	5	10.6	11.9	4	11.1	12.9
Other	1	2.1	2.4	0	0.0	0.0
Missing	5	10.6		5	13.9	
Who should lead group meetings? [*]						
A mental healthcare professional	12	25.5	26.1	10	27.8	27.8
A veteran	8	17.0	17.4	1	2.8	2.8
A family member	2	4.3	4.3	0	0.0	0.0
Professional with veteran or family	22	46.8	47.8	23	63.9	63.9
Other	2	4.3	4.3	2	5.6	5.6
Missing	1	2.1		0	0.0	
How important is it for at least one leader to be an Operation Enduring Freedom/ Operation Iraqi Freedom veteran . . . ?						
Very important	42	89.4	91.3	29	80.6	80.6
Somewhat important	4	8.5	8.7	7	19.4	19.4
Not very important	0	0.0	0.0	0	0.0	0.0
Missing	1	2.1		0	0.0	
How often would you like a program to meet?						
More than weekly	7	14.9	14.9	2	5.6	5.6
Weekly	20	42.6	42.6	11	30.6	30.6
Biweekly	9	19.1	19.1	12	33.3	33.3
Monthly	6	12.8	12.8	8	22.2	22.2
Other	5	10.6	10.6	3	8.3	8.3
How long should the program last?						
One meeting/workshop	1	2.1	2.1	3	8.3	8.3
2–7 weeks	5	10.6	10.6	5	13.9	13.9
8–12 weeks	20	42.6	42.6	6	16.7	16.7
3–11 months	5	10.6	10.6	7	19.4	19.4
12 months or longer	15	31.9	31.9	14	38.9	38.9
Other (“as long as needed”)	1	2.1	2.1	1	2.8	2.8
Acceptable locales for in-person meetings ^a						
VAMC	36	76.6		25	69.4	
CBOC	16	34.0		18	50.0	
Vet Center	18	38.3		14	38.9	
Military facility	11	23.4		7	19.4	
Community facility	16	34.0		18	50.0	
Other	7	14.9		4	11.1	

Table 5 (continued)

Question	Veterans (<i>n</i> = 47)			Family members (<i>n</i> = 36)		
	<i>n</i>	%		<i>n</i>	%	
		Total	Replies		Total	Replies
Importance of including teenagers and younger children in some activities?						
Very important	39	83.0	83.0	31	86.1	86.1
Somewhat important	7	14.9	14.9	5	13.9	13.9
Not very important	1	2.1	2.1	0	0.0	0.0
Desired format of activities with youth ^a						
Groups for teens only	24	51.1		20	55.6	
Groups for younger children only	19	40.4		17	47.2	
Single-family meetings	33	70.2		20	55.6	
Other	6	12.8		5	13.9	

Note. In the Total columns, percentages were calculated based on the total number of veterans/family members in the study. In the Replies columns, percentages were calculated based on the total number of veterans/family members who answered the specific question. VAMC = U.S. Department of Veterans Affairs medical center; CBOC = community-based outpatient clinic.

^a Respondents could check more than one response.

* $p < .05$.

3. The frequency with which both veterans and family expressed a desire for social activities facilitated by the VA, especially multifamily outings involving children, was striking. Providers may wish to facilitate family involvement in such activities (e.g., fishing derbies, basketball, and outdoor sports) as a vehicle for practicing interpersonal skills and decreasing social isolation. Because interests vary regionally and providers may be constrained by the resources available in their programs and communities, providers would want to help their clients identify the types of activities that would be most appealing and most likely to strengthen bonds within the family system and with the broader community.

4. There was more consistency than difference in veteran and family perspectives. Observed differences were logical and intuitive, reflecting each group's emphasis on its own reality during and after deployment (i.e., greater emphasis among veterans on the need to increase family understanding of the veteran's experience, greater emphasis among family members on parenting issues and the need for increased family support). Historically, VA's family services have focused on veterans' desires for information and skills training. As family-involved care within and outside the VA continues to grow, programs will want to consider tailoring their curricula to meet both veterans' and family members' desires.

5. Providers will want to consider the strong preference for a program with in-person meetings rather than one that is technology-based. More than 70% of family members and veterans preferred in-person meetings (see Table 5). This finding was unexpected; with an average age in the late 30s, participants belong to a cohort that is generally comfortable with and adept in using technology. However, participants may believe that some of their major goals (e.g., the desire for social interaction and social support) are less likely to be met through telephone-, video-, and/or Web-based sessions than through in-person sessions.

As is the case for all research, findings from this study need to be considered in context. VA uses telehealth care widely and effectively in therapy and medication management for PTSD. In this study, veterans were asked specifically about their preferred format for a group program involving veterans and family; their responses to that question should not be generalized to other types

of care. It is also important to note that we asked study participants about services and activities they found useful or thought would have been useful during the readjustment process. Thus, their suggestions do not mean that they had no access to any of the services they considered important. Although this was sometimes the case, many participants commented on services that had been especially helpful. For example, participating veterans who had previously taken part in OKC's multifamily group psychoeducation program (Reaching Out to Educate and Assist Caring, Healthy Families; Sherman, Fischer, Sorocco, & McFarlane, 2009) commented on the elements of that experience of greatest value to them in readjustment, and participating veterans who had participated in VA recreational therapy programs commented on helpful aspects of that experience. In addition, participants were often aware that VA and DoD were working in many of these areas, and that conditions and programs were evolving rapidly.

Indeed, although interviews focused on how VA programs could help veterans and families with readjustment and reintegration, much of what participants described is outside the sole purview of the VA. Family-oriented programs that start before deployment, continue through deployment, and are maintained following the veteran's return require coordination across federal departments (DoD, VA) and with community agencies (e.g., schools, employers). DoD and VA are working to create a "seamless transition" with respect to health care and to reduce the stigma of help-seeking, and many communities have created programs for returning veterans (Institute of Medicine, 2013). Participants' experiences make it clear that, although programs exist and are helpful when connections are made, continued efforts are needed as high-quality programs are not consistently available and accessible (Institute of Medicine, 2013; Tanielian, Martin, & Epley, 2014).

Although deployment of U.S. military personnel to Iraq and Afghanistan is declining, the perspectives and recommendations of these returning veterans and family members remain salient. Reintegration into civilian life is an ongoing process that often continues to affect veterans and their families over a considerable period of time postdeployment. Participants' emphasis on the importance of seamless support for veterans and family from predeployment through postdeployment will remain critical into

Table 6

Interview Guides for Veteran and Family Member Focus Group and Individual Interviews

Veterans	Family members/friends
Global opening question	
What has it been like trying to readjust to your life and family life since returning home?	What has it been like trying to readjust to life and family life since your family member returned home?
Probe questions	
1. What have been the biggest problems you have faced since returning from active duty?	1. What have been the biggest problems you have faced since your family member returned from active duty?
2. What has helped you to adjust?	2. What do you think has helped your <i>veteran</i> adjust to life after deployment?
3. What has made it harder for you to adjust?	3. What do you think has helped <i>you and your family</i> adjust to his/her return?
4. Where do you still need the most help in making adjustments?	4. What has made it harder for your <i>veteran</i> to adjust to family life after deployment?
	5. What has made it harder for <i>you and your family</i> to help your veteran adjust to family life after deployment?
	6. Where do you still need the most help in making adjustments?
<p>We are interested in developing a program involving veterans and family members to help both veterans and their families deal with problems such as those we have been discussing, which are common when veterans return from active duty and have PTSD. We want to get your ideas about what would be most useful to you and how to offer it. As you think about these next topics, think about when you/your veteran first returned and any readjustment problems you are still experiencing.</p>	
5. What can the VA do to help with active-duty-to-civilian readjustment problems?	7. What can the VA do to help with active-duty-to-civilian readjustment problems?
<ul style="list-style-type: none"> • How would you feel about taking part in a program that would involve both you and your family members? • What kind of information would be most helpful to you and other veterans dealing with your day-to-day problems? • What kind of information do you think would help your family members understand the readjustment process? • What type of skills do you think would be helpful to you and your family members in dealing with day-to-day problems arising from PTSD? • What other types of services do you think would be helpful to you and to your family members? • How could we best involve your family or others who provide support to you in such a program? 	<ul style="list-style-type: none"> • How do you feel about taking part in a program that would involve both you and the veteran? • What kind of information would be most helpful to you and other veterans' families dealing with day- to-day problems? • What kind of information do you think would help the veteran in returning to his/her previous family life? • What type of skills do you think would help you, your family and the veteran in dealing with day-to-day problems arising from PTSD? • What other types of family services do you think would be helpful to you and other family members? • How could we best involve you and others who provide support to the veteran in such a program?
6. What obstacles do you think there might be that would make it hard for you or your family members to take part in such a program?	8. What obstacles do you think there might be that would make it hard for you or your family members to take part in such a program?
7. How could we best advertise the program to veterans and their families?	9. How could we best advertise the program to veterans and their families?

Note. PTSD = posttraumatic stress disorder; VA = U.S. Department of Veterans Affairs.

the future as U.S. military personnel are deployed to new combat zones. By intervening early on both individual and systems levels, we may be able to minimize long-term effects of recent, current, and future deployment on veterans and their communities.

This study has limitations. First, qualitative data were collected both via focus groups and individual interviews. Some focus group participants may not have commented **explicitly** on subthemes raised by others, leading to an underestimate of subtheme importance. Second, all participants were **recruited** from two facilities in two South-Central states. Participants' **preferences** and priorities may differ from those of veterans and families in other parts of the country. Third, because we designed this as a **primarily** qualitative study, we based sample size on the ability to achieve saturation, the point at which no new information is emerging. Our samples of 47 veterans and 36 family members were relatively large and more than sufficient to achieve saturation; however, this study was neither designed nor powered for testing hypotheses. Although we

have **indicated** where differences achieved statistical significance in Tables 3 and 5, a lack of statistical significance must be interpreted with caution. We feel that this limitation is far outweighed by the **nuanced**, in-depth data we were able to **obtain** through qualitative interviews. Lastly, our study participants **uniformly** and enthusiastically supported family involvement in a **joint** veteran/family program. Interest in family involvement may be lower in the broader population of veterans and family because it is likely that individuals willing to take part in a study on this topic would be positively **inclined** toward family involvement. We feel that this limitation is offset by our having elicited **preferences** about content and **format** from **precisely** those individuals who would be most likely to use such a program. Comparison of the perspectives of male and female veterans is beyond the scope of this article and will be **addressed** in a separate report.

Participants strongly **endorsed** the utility of a VA family program involving veterans with PTSD and those they consider fam-

ily to support the veteran's reintegration into civilian life and the veteran/family readjustment process following the veteran's return from Iraq or Afghanistan. Successfully supporting family members and reinforcing positive intrafamily relationships should also improve outcomes of care for the veteran's PTSD (Byrne & Riggs, 2002; Evans et al., 2010; Kaniasty & Norris, 2008; Keane et al., 2006; Sayer et al., 2010; Taft et al., 2011; Tarrier et al., 1999). The importance of strengthening social support to improve outcomes of PTSD is highlighted by recent evidence that suicide among veterans is more strongly associated with veterans' mental health than with their deployment history (LeardMann et al., 2013). The growing literature on successful family and couples programs for returning veterans, especially veterans with PTSD, provides a resource for providers interested in supplementing existing services with family programming (Davis et al., 2012; Fischer, Sherman, Han, & Owen, 2013).

References

- Batten, S. V., Drapalski, A. L., Decker, M. L., DeViva, J. C., Morris, L. J., Mann, M. A., & Dixon, L. B. (2009). Veteran interest in family involvement in PTSD treatment. *Psychological Services, 6*, 184–189. <http://dx.doi.org/10.1037/a0015392>
- Bernard, H. R., & Ryan, G. W. (2010). *Analyzing qualitative data: Systematic approaches*. Thousand Oaks, CA: Sage.
- Byrne, C. A., & Riggs, D. S. (2002). Gender issues in couple and family therapy following traumatic stress. In R. Kimerling, P. Ouimette, & J. Wolfe (Eds.), *Gender and PTSD* (pp. 382–399). New York, NY: Guilford Press.
- Davis, L. W., Paul, R., Tarr, D., Eicher, A. C., Allinger, J., & Knock, H. (2012). Operation restoration: Couples reunification retreats for veterans of Operations Enduring and Iraqi Freedom. *Journal of Psychosocial Nursing and Mental Health Services, 50*, 20–29. <http://dx.doi.org/10.3928/02793695-20121003-02>
- Epidemiology Program, Post-Deployment Health Group, Office of Public Health, Veterans Health Administration, & Department of Veterans Affairs. (2014). *Analysis of VA health care utilization among Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND) veterans: Cumulative from 1st Qtr FY 2002 through 1st Qtr FY 2014*. Retrieved from <http://www.publichealth.va.gov/docs/epidemiology/healthcare-utilization-report-fy2014-qtr1.pdf>
- Evans, L., Cowlshaw, S., Forbes, D., Parslow, R., & Lewis, V. (2010). Longitudinal analyses of family functioning in veterans and their partners across treatment. *Journal of Consulting and Clinical Psychology, 78*, 611–622. <http://dx.doi.org/10.1037/a0020457>
- Fischer, E. P., Sherman, M. D., Han, X., & Owen, R. R. (2013). Outcomes of participation in the REACH Multifamily Group Program for veterans with PTSD and their families. *Professional Psychology: Research and Practice, 44*, 127–134. <http://dx.doi.org/10.1037/a0032024>
- Foa, E. B., Keane, T. M., & Friedman, M. J. (Eds.). (2009). *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (2nd ed.). New York, NY: Guilford Press.
- Glynn, S. M. (2013). Family-centered care to promote successful community reintegration after war: It takes a nation. *Clinical Child and Family Psychology Review, 16*, 410–414. <http://dx.doi.org/10.1007/s10567-013-0153-z>
- Harding, J. (2013). *Qualitative data analysis from start to finish*. Los Angeles, CA: Sage.
- Institute of Medicine. (2012). *Treatment for posttraumatic stress disorder in military and veteran populations: Initial assessment*. Retrieved from <http://www.iom.edu/Reports/2012/Treatment-for-Posttraumatic-Stress-Disorder-in-Military-and-Veteran-Populations-Initial-Assessment>
- Institute of Medicine. (2013). *Returning home from Iraq and Afghanistan: Assessment of readjustment needs of veterans, service members, and their families*. Washington, DC: National Academies Press.
- Institute of Medicine. (2014). *Treatment for posttraumatic stress disorder in military and veteran populations: Final assessment*. Washington, DC: National Academies Press.
- Kaniasty, K., & Norris, F. H. (2008). Longitudinal linkages between perceived social support and posttraumatic stress symptoms: Sequential roles of social causation and social selection. *Journal of Traumatic Stress, 21*, 274–281. <http://dx.doi.org/10.1002/jts.20334>
- Keane, T. M., Marshall, A. D., & Taft, C. T. (2006). Posttraumatic stress disorder: Etiology, epidemiology, and treatment outcome. *Annual Review of Clinical Psychology, 2*, 161–197. <http://dx.doi.org/10.1146/annurev.clinpsy.2.022305.095305>
- Khaylis, A., Polusny, M. A., Erbes, C. R., Gewirtz, A., & Rath, M. (2011). Posttraumatic stress, family adjustment, and treatment preferences among National Guard soldiers deployed to OEF/OIF. *Military Medicine, 176*, 126–131. <http://dx.doi.org/10.7205/MILMED-D-10-00094>
- LeardMann, C. A., Powell, T. M., Smith, T. C., Bell, M. R., Smith, B., Boyko, E. J., . . . Hoge, C. W. (2013). Risk factors associated with suicide in current and former U.S. military personnel. *Journal of the American Medical Association, 310*, 496–506. <http://dx.doi.org/10.1001/jama.2013.65164>
- Makin-Byrd, K., Gifford, E., McCutcheon, S., & Glynn, S. (2011). Family and couples treatment for newly returning veterans. *Professional Psychology: Research and Practice, 42*, 47–55. <http://dx.doi.org/10.1037/a0022292>
- Meis, L. A., Barry, R. A., Kehle, S. M., Erbes, C. R., & Polusny, M. A. (2010). Relationship adjustment, PTSD symptoms, and treatment utilization among coupled National Guard soldiers deployed to Iraq. *Journal of Family Psychology, 24*, 560–567. <http://dx.doi.org/10.1037/a0020925>
- Meis, L. A., Wilder-Schaaf, K., Erbes, C. R., Polusny, M. A., Miron, L. R., Schmitz, T. M., & Nugent, S. M. (2012). Interest in partner-involved services among veterans seeking mental health care from a VA PTSD clinic. *Psychological Trauma: Theory, Research, Practice, and Policy, 5*, 334–342.
- Miles, M., Huberman, A., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Los Angeles, CA: Sage.
- Monson, C. M., Taft, C. T., & Fredman, S. J. (2009). Military-related PTSD and intimate relationships: From description to theory-driven research and intervention development. *Clinical Psychology Review, 29*, 707–714. <http://dx.doi.org/10.1016/j.cpr.2009.09.002>
- Muhr, T., & Friese, S. (2004). *User's manual for ATLAS.ti 5.0* (2nd ed.). Berlin, Germany: Scientific Software Development.
- Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed.). Thousand Oaks, CA: Sage.
- Sayer, N. A., Noorbaloochi, S., Frazier, P., Carlson, K., Gravely, A., & Murdoch, M. (2010). Reintegration problems and treatment interests among Iraq and Afghanistan combat veterans receiving VA medical care. *Psychiatric Services, 61*, 589–597. <http://dx.doi.org/10.1176/ps.2010.61.6.589>
- Schnurr, P. P., Lunney, C. A., & Sengupta, A. (2004). Risk factors for the development versus maintenance of posttraumatic stress disorder. *Journal of Traumatic Stress, 17*, 85–95. <http://dx.doi.org/10.1023/B:JOTS.0000022614.21794.f4>
- Sherman, M. D., Fischer, E. P., Sorocco, K., & McFarlane, W. R. (2009). Adapting the multifamily group model to the Veterans Affairs system: The REACH program. *Professional Psychology: Research and Practice, 40*, 593–600. <http://dx.doi.org/10.1037/a0016333>
- Taft, C. T., Watkins, L. E., Stafford, J., Street, A. E., & Monson, C. M. (2011). Posttraumatic stress disorder and intimate relationship problems: A meta-analysis. *Journal of Consulting and Clinical Psychology, 79*, 22–33. <http://dx.doi.org/10.1037/a0022196>

- Tanielian, T., Martin, L. T., & Epley, C. (2014). *Enhancing capacity to address mental health needs of veterans and their families*. Santa Monica, CA: RAND Corporation.
- Tarrier, N., Sommerfield, C., & Pilgrim, H. (1999). Relatives' expressed emotion (EE) and PTSD treatment outcome. *Psychological Medicine*, 29, 801–811. <http://dx.doi.org/10.1017/S0033291799008569>
- Ursano, R. J., Bell, C., Eth, S., Friedman, M., Norwood, A., Pfefferbaum, B., . . . Yager, J. (2004). Practice guideline for the treatment of patients with acute stress disorder and posttraumatic stress disorder. *The American Journal of Psychiatry*, 161(Suppl.), 3–31.
- U.S. Department of Veterans Affairs & U.S. Department of Defense. (2010). *VA/DoD clinical practice guideline for management of post-traumatic stress—v2.0*. Retrieved from http://www.healthquality.va.gov/guidelines/MH/ptsd/cpg_PTSD-FULL-201011612.pdf
- U.S. Department of Veterans Affairs, Veterans Health Administration. (2008). *VHA Handbook 1160.01: Uniform mental health services in VA medical centers and clinics*. Washington, DC: Author.

Received May 6, 2014

Revision received February 15, 2015

Accepted February 22, 2015 ■

Don't Aim Too High for Your Kids: Parental Overaspiration Undermines Students' Learning in Mathematics

Kou Murayama

University of Reading and Kochi University of Technology

Reinhard Pekrun

University of Munich

Masayuki Suzuki

Showa Women's University

Herbert W. Marsh

Australian Catholic University and King Saud University

Stephanie Lichtenfeld

University of Munich

Previous research has suggested that parents' aspirations for their children's academic attainment can have a positive influence on children's actual academic performance. Possible negative effects of parental overaspiration, however, have found little attention in the psychological literature. Employing a dual-change score model with longitudinal data from a representative sample of German school children and their parents ($N = 3,530$; Grades 5 to 10), we showed that parental aspiration and children's mathematical achievement were linked by positive reciprocal relations over time. Importantly, we also found that parental aspiration that exceeded their expectation (i.e., overaspiration) had negative reciprocal relations with children's mathematical achievement. These results were fairly robust after controlling for a variety of demographic and cognitive variables such as children's gender, age, intelligence, school type, and family socioeconomic status. The results were also replicated with an independent sample of U.S. parents and their children. These findings suggest that unrealistically high parental aspiration can be detrimental for children's achievement.

Keywords: parental expectation, mathematical achievement, latent difference score model, cross-lagged analysis, aspiration–expectation gap

Supplemental materials: <http://dx.doi.org/10.1037/pspp0000079.supp>

It has been commonly recognized that parental beliefs and attitudes have substantive effects on their children's academic outcomes (Eccles, Wigfield, & Schiefele, 1998). Among many parental beliefs, parental aspiration for their children's academic achievements has received considerable attention over the past half century in the literature of both psychology and sociology (for a review, see Yamamoto & Holloway, 2010). In psychology, for example, several social–cognitive models like the expectancy-value theory (Parsons, Adler, & Kaczala, 1982; see also Bronfenbrenner & Morris, 1998; Grolnick & Slowiaczek, 1994; Oyserman,

2013) have suggested that parental aspiration can influence children's academic achievement through a socialization processes. In the Wisconsin model of status attainment proposed by sociologists (Sewell, Haller, & Ohlendorf, 1970; Sewell, Haller, & Portes, 1969; see also Kerckhoff, 1976), parental aspiration has been posited to be one of the critical mediators that link family social background to children's educational and occupational attainment.

In accordance with these theoretical predictions, the positive associations between parental aspiration and children's academic attainment have been investigated in numerous empirical studies.

This article was published Online First November 23, 2015.

Kou Murayama, Department of Psychology, University of Reading, and Research Unit of Psychology, Education & Technology, Kochi University of Technology; Reinhard Pekrun, Department of Psychology, University of Munich; Masayuki Suzuki, Department of Psychology, Showa Women's University; Herbert W. Marsh, Institute for Positive Psychology and Education, Australian Catholic University, and Department of Education, King Saud University; Stephanie Lichtenfeld, Department of Psychology, University of Munich.

This research was supported by four grants from the German Research Foundation (DFG); to R. Pekrun (Project for the Analysis of Learning and Achievement in Mathematics, PALMA; PE 320/11-1, PE 320/11-2, PE 320/11-3, PE 320/11-4). This research was also partly

supported by the Marie Curie Career Integration Grant (CIG630680; to Kou Murayama) and JSPS KAKENHI (Grant Number 15H05401; to Kou Murayama).

We thank the German Data Processing and Research Center (DPC) of the International Association for the Evaluation of Educational Achievement (IEA) for conducting the sampling and the assessments of the main study. We also thank Dr. Satoshi Usami (University of Tsukuba; University of Reading) and Child Development Group (CDG) at the University of Reading for helpful and insightful comments.

Correspondence concerning this article should be addressed to Kou Murayama, Department of Psychology, University of Reading, Earley Gate, Whiteknights, Reading, United Kingdom RG6 6AL. E-mail: k.murayama@reading.ac.uk

The findings indicate a strong positive link between the two variables (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; De Civita, Pagani, Vitaro, & Tremblay, 2004; Frome & Eccles, 1998; Okagaki & Sternberg, 1993), and this relationship seems robust across cultures and age groups (Astone & McLanahan, 1991; De Civita et al., 2004; Halle, Kurtz-Costes, & Mahoney, 1997; Neuenschwander, Vida, Garrett, & Eccles, 2007). In fact, among the various specific components of parental involvement, parental aspiration yielded the largest effect size in relation to academic performance, as shown by meta-analytic findings (Fan & Chen, 2001; Jeynes, 2005, 2007). From a practical perspective, this evidence suggests that it may be important to enhance parents' aspirations to promote children's academic performance (Jeynes, 2011).

Issues in Empirical Research on Parental Aspiration and Academic Achievement

The existing literature provides strong evidence for a positive association between parental aspiration and academic achievement. These previous studies may lead people to think that there is nothing to question about the beneficial effects of holding high aspirations for their children. However, there are two critical issues that have not been sufficiently considered in the existing literature.

Temporal Ordering and Possible Reciprocal Effects

First, many of the previous studies tested the relation between parental aspiration and student's academic achievement using cross-sectional or prospective designs (e.g., Bandura et al., 1996; Davis-Kean, 2005; De Civita et al., 2004; Frome & Eccles, 1998; Okagaki & Sternberg, 1993; Pearce, 2006). Such designs leave the temporal order of aspiration and achievement unclear. The positive relation between parental aspiration and children's academic performance may well be because of reverse-order effects—children's high academic achievement may lead parents to adopt high aspirations. Only a limited number of longitudinal studies have strictly controlled students' past academic achievement to examine the temporal ordering of aspirations and academic achievement (for a similar note, see Yamamoto & Holloway, 2010). Moreover, these longitudinal studies have several methodological limitations, such as a small sample size (e.g., $N = 81$ in Goldenberg, Gallimore, Reese, & Garnier, 2001) or designs including only two waves (Carpenter, 2008; Zhang, Haddad, Torres, & Chen, 2011). In addition, some studies used school grades as a proxy for academic achievement (e.g., Neuenschwander et al., 2007), although grades have been argued to not be an adequate or valid measure of academic achievement (Graham, 2015). Likely because of these methodological problems, the results of these longitudinal studies have been inconsistent (Carpenter, 2008; Goldenberg et al., 2001; Zhang et al., 2011).

To our knowledge, the only exception is a recent study by Briley, Harden, and Tucker-Drob (2014). This study tested possible reciprocal effects between parental expectations and U.S. students' achievement in mathematics and reading with a large, nationally representative sample, and used a longitudinal design including four waves (kindergarten through 5th grade). The results of cross-lagged analysis showed that parental expectation had positive effects on students' academic achievement even after

controlling for their past academic achievement. It is worth noting that the authors also found positive effects of academic achievement on parental expectation (after controlling for previous parental expectation). These reciprocal positive relationships between parental expectation and academic achievement (see also Zhang et al., 2011) support the idea that parent-child socialization processes can be characterized as a transactional (i.e., bidirectional), not a one-way transmission (Bell, 1968). This research seemed to provide the strong evidence for the facilitative effects of parental aspiration on children's academic achievement (and vice versa). However, they focused on parental expectation and did not directly examine the effects of parental aspiration—as we will later elaborate, this distinction is of particular theoretical importance to understand the dynamic parental-children relationships. In addition, the robustness and the generalizability of the findings (e.g., research in different cultures or with different age groups) are still left as an open question.

Potential Negative Effects of Parental Overaspiration

Second, and more importantly, in contrast to the large body of literature showing positive links between parental aspiration and children's academic performance, there is a surprising lack of research that has examined possible adverse effects of parental aspiration (Yamamoto & Holloway, 2010). Parents with high aspirations for their children's academic attainment are likely to be committed to, and highly involved with, their children, which will typically enhance children's academic achievement (Halle et al., 1997). However, excessively high parental aspiration that exceeds realistic expectations of the children's performance (i.e., parental overaspiration) may lead to overinvolvement, excessive pressure to achieve, and high levels of control over a child's behavior. Such parental control behavior is likely to contribute to a child's maladjustment (Grolnick, 2003; Roth, Assor, Niemiec, Deci, & Ryan, 2009). Other lines of research also indicate that unrealistically positive perceptions can increase the risk of negative outcomes (e.g., Baumeister, 1989; Robins & Beer, 2001; Weinstein, 1980). Thus, it is possible that parental overaspiration can have deleterious effects on children's academic achievement.

We define parental overaspiration as the extent to which parental aspiration ("We want our child to obtain this grade") exceeds parental expectation ("We believe our child can obtain this grade"). Parental aspiration and expectation both focus on potential future achievement (i.e., the constructs are different from current or prior achievement), but are distinct in their specific foci. Parental aspiration is defined as the desires, wishes, or goals that parents have formed regarding their children's future attainment; parental expectation is characterized as beliefs or judgments that parents have about how their children's achievement will develop realistically (Hanson, 1994). Despite this conceptual difference, in the psychological literature, the constructs of parental aspiration and expectation have often been used interchangeably (Shute, Hansen, Underwood, & Razzouk, 2011; Trusty, 2002; Yamamoto & Holloway, 2010). In fact, some researchers regarded an aspiration item as an index of parental expectation (e.g., Juang & Silbereisen, 2002; Zhang et al., 2011). Some other researchers assessed parental aspirations and expectations separately but combined them into a single measure (e.g., Bandura et al., 1996).

This potential confounding of the two constructs in empirical research is somewhat surprising, given that several theories in psychology actually suggest the importance of distinguishing them. For example, in their framework of possible selves, Markus and Nurius (1986; see also Oyserman & Markus, 1990) argued that motivation and behavior are guided by several different types of self-concepts, including hoped-for selves (akin to aspiration) and expected selves (akin to expectation). Self-discrepancy theory (Higgins, 1987; see also identity discrepancy theory, Large & Marcussen, 2000) indicates that people have differentiated self-representations of “actual-self” (akin to expectation) and “ideal-self” (akin to aspiration). Notably, self-discrepancy theory argues that the incongruence between actual-self and ideal-self could produce lower self-esteem and negative emotions, such as dejection and frustration (Strauman & Higgins, 1987; but see Scalas, Marsh, Morin, & Nagengast, 2014), suggesting potential problems of having overaspiration.

In contrast to research in psychology, researchers in sociology have long made a clear distinction between expectation and aspiration, especially for students' occupational attainment. Stephenson (1957), for example, distinguished between occupational aspirations (i.e., what one would like to achieve) and plans (what one expects to do), and found a larger gap between occupational aspiration and expectation in students from lower social background. In fact, the “aspiration-expectation gap” in minority groups or those with low socioeconomic status (SES) has long been one of the major topics in sociology (e.g., Arbona, 1990; Holloway & Berreman, 1959; Kirk et al., 2012). There is also a long line of research examining an apparent paradox that African American parents tend to have high aspiration for their children despite their poor academic achievement or low parental expectations (Mickelson, 1990). The majority of these studies, however, considered the gap between aspirations and expectations as a consequence of minority status or impoverished socioeconomic background (Cook et al., 1996; Elliott, 2009; Kirk et al., 2012; Metz, Fouad, & Ihle-Helledy, 2009); little attention has been paid to the potential harmful effects of having such a gap.

Only a few recent studies explored possible negative consequences of overaspiration. Boxer, Goldstein, DeLorenzo, Savoy, and Mercado (2011) compared students whose self-reported aspiration was greater than their self-reported expectation (overaspired students) and students whose aspiration matched their expectation. Results showed that overaspired students exhibited several academic and social risks, such as lower levels of school bonding, higher levels of test anxiety, elevated behavioral/emotional difficulties, and lower self-reported school grades. Rutherford (2015) found that the mismatch between students' self-reported aspiration and expectation negatively predicted students' emotional well-being. However, these studies used cross-sectional designs, making it impossible to determine the temporal ordering of the variables. In addition, these studies did not examine objective academic achievement. Furthermore, their primary focus was on students' self-reported aspiration and expectation; thus, the data do not speak to whether parental overaspiration influences children's academic performance (i.e., intergenerational effects). In order to examine possible adverse or beneficial effects of parental overaspiration on children's academic achievement, we need a more rigorous examination.

Present Research

The current research aimed to advance our understanding of the relations between parents' aspiration and their children's academic achievement by addressing the number of critical issues earlier (see earlier discussion). Specifically, we first aimed to rigorously examine the effects of parents' aspirations on their children's achievement, as well as possible reciprocal effects of children's achievement on their parents' aspirations. We did so by analyzing a large-sample, multiwave, intergenerational longitudinal data set with an advanced quantitative methodology: the dual-change score model (McArdle, 2009; McArdle & Hamagami, 2001). This methodology makes full use of information from multiwave data and allows us to examine the temporal ordering of the variables in a more sophisticated manner than the standard cross-lagged model (for limitations of the cross-lagged model, see, e.g., Hamaker, Kuiper, & Grasman, 2015, and Rogosa, 1980). We then highlighted possible negative aspects of parental aspiration with regard to children's achievement. Specifically, we applied the same dual-change score model with parental overaspiration (i.e., parental aspiration relative to parental expectation) as an alternative predictor variable, and investigated whether parental overaspiration would negatively predict the change in academic achievement over time (and vice versa). To our knowledge, this is the first multiwave study examining the negative reciprocal relations of parental overaspiration and children's achievement. To demonstrate the robustness and generalizability of our findings, we also attempted to replicate the main findings of the study with another large sample of U.S. parents and children.

Method

Participants and Design

The sample consisted of German children who participated in the Project for the Analysis of Learning and Achievement in Mathematics (PALMA; see Frenzel, Pekrun, Dicke, & Goetz, 2012; Murayama, Pekrun, Lichtenfeld, & vom Hofe, 2013; Pekrun et al., 2007). This project included a longitudinal study involving annual assessments during the secondary school years (Grades 5 to 10; 2002 to 2007) to investigate adolescents' development in mathematics. At each grade level, the PALMA math achievement test and a parental questionnaire were administered toward the end of the school year during the same day. The sampling and the assessments were conducted by the Data Processing and Research Center (DPC) of the International Association for the Evaluation of Educational Achievement (IEA).

Samples were drawn from secondary schools in the state of Bavaria, and were drawn so that they were representative of the child population of Bavaria in terms of student demographics such as gender, urban versus rural location, and family background (SES; for details, see Pekrun et al., 2007). The samples included children from all three major school types within the German public school system, including lower-track schools (Hauptschule), intermediate-track schools (Realschule), and higher-track schools (Gymnasium). These three school types differ in academic demands and children's entry-level academic ability. At the first assessment (Grade 5), the sample comprised 2,070 children from 42 schools (49.6% female, mean age = 11.7 years;

37.2% lower-track schoolchildren, 27.1% intermediate-track schoolchildren, and 35.7% higher-track schoolchildren). In each subsequent year, the study not only tracked the children who had participated in previous assessments but also included those children who had not yet participated in the study but had become children of PALMA classrooms at the time of the assessment (see Pekrun et al., 2007). This sampling strategy resulted in the following sample sizes for the subsequent years: 2,059 students in Grade 6 (50.0% female, mean age = 12.7 years); 2,397 students at Grade 7 (50.1% female, mean age = 13.7 years); 2,410 students at Grade 8 (50.5% female, mean age = 14.8 years); 2,528 students at Grade 9 (51.1% female, mean age = 15.6 years); and 1,946 students at Grade 10 (51.5% female, mean age = 16.5 years). Across all assessments (i.e., Grades 5 to 10), a total of 3,530 students (49.7% female) took part in the study. Also, 27.8% of the total sample completed all six assessments, and 14.1%, 15.2%, 11.1%, 17.0%, and 14.8% completed five, four, three, two, or one assessment(s), respectively.

Measures

All variables that were analyzed for this research are reported. The PALMA project included various assessments of children, teachers, and parents (for an overview, see Pekrun et al., 2007). For the purpose of investigating the effects of parental aspiration, the current study focused on the following measures.

Mathematics achievement. Mathematics achievement was assessed by the PALMA Mathematical Achievement Test (vom Hofe, Pekrun, Kleine, & Götz, 2002). Using both multiple-choice and open-ended items, this test measures children's modeling competencies and algorithmic competencies in arithmetics, algebra, and geometry.

The test was constructed using multimatrix sampling with a balanced incomplete block design. Specifically, for each time point, there were two different test versions consisting of approximately 60 to 90 items each, and each child completed one of these two test booklets. Anchor items were included to link the test versions within and across the six different measurement points. As in our previous research (Murayama et al., 2013), the obtained achievement scores were scaled using one-parameter logistic item response theory (Rasch scaling), with $M = 100$ and $SD = 15$ at Grade 5 (i.e., the first measurement point). Additional analyses confirmed the unidimensionality and longitudinal invariance of the test scales (Murayama et al., 2013).

Parental aspiration and expectation. Parental aspiration was assessed by a single item in which parents reported the degree to which they wanted their child to perform well in mathematics at school ("We want our daughter/our son to get the following grade in mathematics"). The item was answered on a 6-point scale indicating the grade parents wanted their child to get, using grades as defined in the German school system (1 = excellent to 6 = unsatisfactory). In addition, parental expectation was assessed by an item asking parents to report their belief of how well their child will perform in mathematics (one single item; "We believe that our daughter/son can get the following grade in mathematics"). The expectation item was answered on the same 6-point scale (1 = excellent to 6 = unsatisfactory). For the present analysis, scores for these items were reversed to ease interpretation. The phrasing

of these two items was adopted from the previous literature (e.g., Goldenberg et al., 2001; Okagaki & Frensch, 1998).

Control variables. Control variables included children's gender, age in months at Time 1 (Grade 5), intelligence, school type (Hauptschule, Realschule, and Gymnasium), and family SES. Students' age in months at Grade 5 was included because previous research indicated that the age variability within grades (i.e., whether they were born earlier or later within a grade) can be associated with achievement scores (e.g., Cahan & Cohen, 1989). This variable was anchored to the youngest student in the sample (i.e., all the students have a value of 0 or above 0). Intelligence was measured at every annual wave using the 25-item nonverbal reasoning subtest of the German adaptation of Thorndike's Cognitive Abilities Test (*Kognitiver Fähigkeitstest*, KFT 4–12 + R; Heller & Perleth, 2000). Family SES was assessed by parent report using the EGP classification (Erikson, Goldthorpe, & Portocarero, 1979), which consists of six ordered categories of parental occupational status.

Data Analysis

To address longitudinal change and reciprocal effects of parental aspiration (or overaspiration) and mathematics achievement, a bivariate dual-change score model (McArdle & Hamagami, 2001) using structural equation modeling was applied. Traditionally, multivariate longitudinal data are analyzed using either cross-lagged regression models (Finkel, 1995) or latent growth-curve models (McArdle & Anderson, 1990). Cross-lagged regression models address the temporal ordering of variables, thus providing a strong basis for causal inference. Latent growth-curve models, on the other hand, address overall mean growth trends and related individual differences by incorporating latent growth factors. Dual-change score models can be viewed as a hybrid of these two classes of models, combining cross-lagged effects and growth factors in a single model to delineate the dynamic nature of longitudinal trajectories (Ferrer & McArdle, 2003; McArdle, 2009; McArdle & Hamagami, 2001).

A bivariate dual-change score model is depicted in Figure 1. The key variables of the model are Δ_{xt} and Δ_{yt} , which represent scores for true change in x and y between the previous time point ($t-1$) and the current time point (t). Importantly, a latent change variable (e.g., Δ_{xt}) is a function of (a) a constant change effect of an overall slope factor (γ_x), (b) an autopropotional effect (β_x) of a latent factor representing the same variable at the previous time point (x_{t-1}), (c) a coupling effect ($\gamma_{y \rightarrow x}$) of a latent factor representing the other variable at the previous time point (y_{t-1}), and (d) an effect of disturbance (δ_t). Note that the model also includes an intercept factor (e.g., I_x), representing the baseline scores (i.e., scores at Grade 5 in our context) of each variable. Equality constraints are imposed on coupling coefficients ($\gamma_{x \rightarrow y}$ and $\gamma_{y \rightarrow x}$), autopropotional coefficients (β_x and β_y), disturbance variances, and error variances over time.

Of particular interest in our current study is the predictive relation between parental aspiration (or overaspiration) and subsequent improvement in mathematics achievement, as well as the predictive relation between mathematics achievement and subsequent growth in aspirations, which are reflected in the coupling coefficients ($\gamma_{x \rightarrow y}$ and $\gamma_{y \rightarrow x}$). Note that, unlike the procedure in traditional cross-lagged regression modeling, coupling coefficients

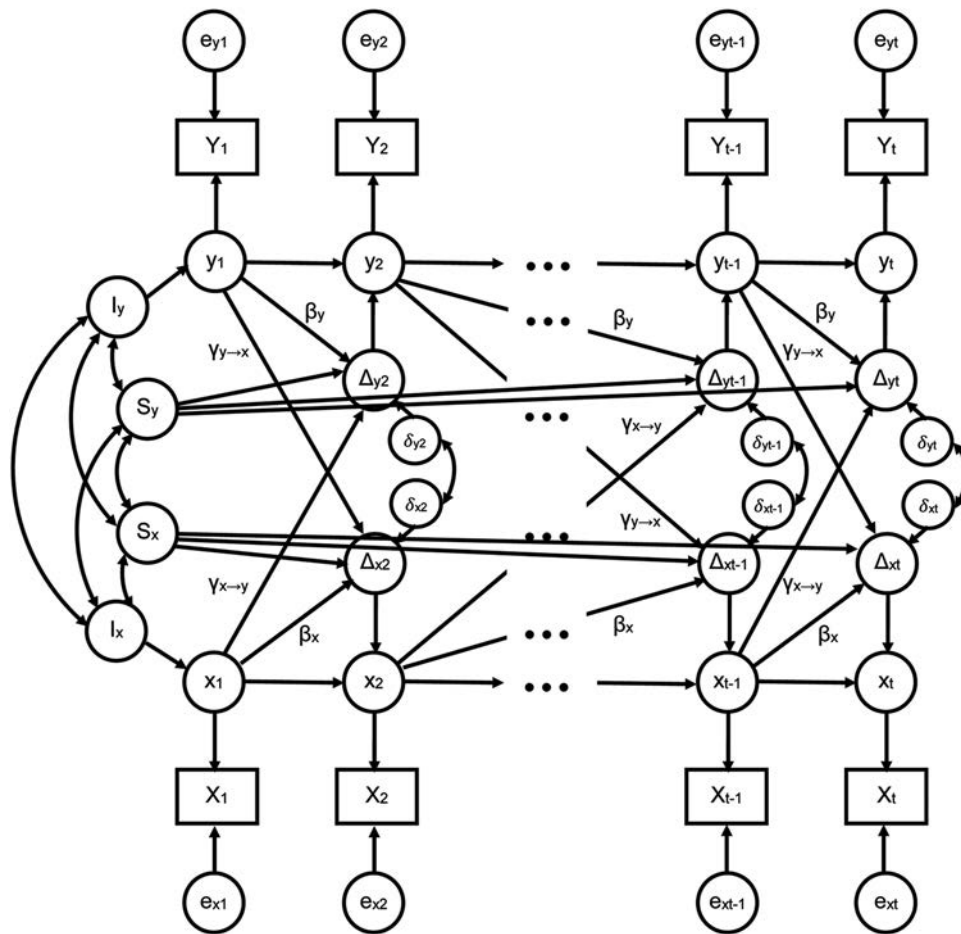


Figure 1. Bivariate dual-change score model. Squares represent observed variables; circles represent latent variables; dots represent an implied repetition of a time series. Paths (one-headed arrows) without coefficients (e.g., β) are all fixed to 1.

in dual-change score models are estimated while controlling for the effect of individual differences in an overall mean value (I_x) and an overall growth component (s_x). This makes it possible to precisely estimate the effect of a variable at the preceding time point on the change of the other variable (Usami, Hayes, & McArdle, in press; see also Hamaker, Kuiper, & Grasman, 2015). In addition, as our primary variables use a metric that makes scores comparable over time (e.g., achievement scores are scaled across time points using Rasch scaling), their change scores provide useful information to understand people's change over time; thus, bivariate dual-change score modeling has many advantages in light of the main purpose of our study.

We assessed the fit of the data to bivariate dual-change score models with standard fit indices including the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA). We report unstandardized estimates for ease of interpretation. In the analysis, we adjusted the standard errors and chi-square statistics to correct for potential statistical biases resulting from non-normality of the data (MLR estimator; Muthén & Muthén, 2004). Because of the longitudinal design of the study, there are missing data resulting from

participant attrition. Accordingly, in order to make full use of the data from children and parents who only participated in part of the investigation, we applied the full information maximum likelihood method to deal with missing data (Enders, 2010).

Results

Parental Aspiration and Children's Mathematical Achievement

We first examined the reciprocal relation between parental aspiration and children's mathematical achievement. Parental aspiration showed a slight decrease over time from 5th grade to 10th grade, $M_s (SDs) = 4.87 (0.63), 4.79 (0.65), 4.72 (0.68), 4.69 (0.71), 4.69 (0.73),$ and $4.70 (0.75)$, respectively—the linear decreasing trend was statistically significant, $p < .01$. Not surprisingly, Rasch-scaled math achievement scores increased over time from 5th grade to 10th grade, $M_s (SDs) = 100.0 (15.0), 111.1 (16.5), 115.3 (17.3), 125.7 (18.6), 131.0 (20.0),$ and $147.0 (15.4)$, respectively—the linear increasing trend was statistically significant, $p < .01$.

Table S1 of the online supplemental materials reports the correlations of parental aspiration scores with the other study variables. Consistent with previous studies, parents' aspiration was positively correlated with their children's math achievement scores at each time point ($r_{\text{mean}} = 0.23, ps < .01$). Parental aspiration was also correlated with children's intelligence, but the relationship seemed somewhat weaker ($r_{\text{mean}} = 0.16, ps < .01$). Parents of children from higher- or intermediate-track school and parents of female children were found to have slightly lower aspiration scores (see Table S1).

Reciprocal effects. A bivariate dual-change score model (see Figure 1) was applied to address the reciprocal relations between parental aspiration and mathematical achievement. A preliminary analysis indicated that the variance of the aspiration slope factor and the covariance between the aspiration intercept and mathematical achievement slope factors were small, and that the small size of these estimates caused improper solutions in the basic model and subsequent more complicated models tested later. Therefore, we fixed these parameters to zero. The model showed a good fit to the data, $\chi^2(72) = 680.2, p < .01, CFI = .95, TLI = .95, RMSEA = 049$.

Table 1 reports parameter estimates from the dual-change score model (see Table S2 of the online supplemental materials for the full parameter estimates). The model clearly shows that parental aspiration and children's math performance were linked by positive reciprocal effects. Specifically, the coupling effect of parental aspiration on growth of math achievement was positive and statistically significant, $\gamma_{\text{aspiration} \rightarrow \text{math}} = 0.811, p < .01$, meaning that a unit difference in the aspiration score adds a 0.811 point increase to the change score in the math achievement. In addition, the coupling effect of math achievement on change of parental aspiration was also positive and statistically significant $\gamma_{\text{math} \rightarrow \text{aspiration}} = 0.001, p < .01$. These findings provide empirical evidence that the extent to which parents want their children to perform well at school not only affects children's growth in mathematics achievement but also is influenced by children's previous math achievement (Zhang et al., 2011).

Analysis including control variables. To ensure that the obtained findings were not an artifact produced by other plausible variables, we conducted a series of analyses that included control variables. First, we included children's gender, age at the first time point in months, intelligence (also assessed at the first time point), school type (with two orthogonally coded variables), and SES as time-invariant covariates by regressing the intercept and slope factors on these covariates, which is a standard method to control

for participant-level variables in latent growth curve models (see Duncan, Duncan, & Strycker, 2006). The positive reciprocal coupling effects remained statistically significant ($\gamma_{\text{aspiration} \rightarrow \text{math}} = 1.195, p < .01; \gamma_{\text{math} \rightarrow \text{aspiration}} = 0.002, p < .01$).

Second, we conducted multigroup analyses to examine possible differences in the parameter estimates between genders, school types, and family SES. Note that the data from the lower-track school did not sufficiently cover the covariance involving Grade 10 variables, because most children from the lower-track schools had graduated after Grade 9. Accordingly, it is not possible to conduct a multigroup analysis using the lower-track children as an independent group. Thus, we combined the lower-track schoolchildren and intermediate-track schoolchildren for the multigroup analysis. For family SES, students were divided into a high-SES group (those who were in the top three categories) and a low-SES group (those who were in the bottom three categories).

Table 1 reports the results from models that allowed parameter estimates to differ between groups. The results showed that there were generally significant positive effects of parental aspiration on mathematics achievement regardless of children's gender and family SES ($\gamma_{\text{aspiration} \rightarrow \text{math}} = 0.538$ to $1.082, ps < .054$). In fact, chi-square difference tests indicated that the coupling effects ($\gamma_{\text{aspiration} \rightarrow \text{math}}$) did not statistically differ between male and female children, $\chi^2(1) = 2.12, ns$, and between low-SES and high-SES groups, $\chi^2(1) = 2.05, ns$. School type is the only exception: Whereas the effects of parental aspirations on mathematics achievement were positive and statistically significant for children from higher-track schools, $\gamma_{\text{aspiration} \rightarrow \text{math}} = 1.550, p < .01$, the effect did not reach statistical significance for children from intermediate- and lower-track schools, $\gamma_{\text{aspiration} \rightarrow \text{math}} = 0.369, ns$. Chi-square difference tests indicated that the coupling effects were indeed larger for children from higher-track schools than for children from intermediate- and lower-track schools, $\chi^2(1) = 12.19, p < .01$.

The effects of children's math achievement on parental aspirations showed more variation across groups. Specifically, whereas the coupling effects were positive and statistically significant for female children, higher-track schools, and the low-SES group ($\gamma_{\text{math} \rightarrow \text{aspiration}} = 0.001$ to $0.003, ps < .01$), the same effects were not significant for males, intermediate- and lower-track schools, and the high-SES group ($\gamma_{\text{math} \rightarrow \text{aspiration}} = 0.000$ to 0.001). Note, however, that the group differences were statistically significant only for school type and family SES, $\chi^2s(1) > 4.21, ps < .05$. For gender, the difference did not attain statistical significance $\chi^2(1) = 2.12, ns$.

Table 1
Effects of Aspiration: Unstandardized Parameter Estimates for the Dual-Change Score Model and the Multigroup Analyses, Including Gender, School Type, and Family SES

Parameters	Total	Children's gender		School type		Family SES	
		Male	Female	Lower and intermediate track	Higher track	Low SES	High SES
$\gamma_{\text{aspiration} \rightarrow \text{math}}$	0.811**	0.538 [†]	1.082**	0.369	1.550**	0.868**	0.929**
$\gamma_{\text{math} \rightarrow \text{aspiration}}$	0.001**	0.001	0.001**	0.000	0.003**	0.001	0.002**
$\beta_{\text{aspiration}}$	-0.044*	-0.034	-0.049**	-0.032 [†]	-0.055**	-0.041 [†]	-0.054**
β_{math}	-0.041**	-0.024*	-0.061**	0.013	-0.100**	-0.030*	-0.060**

Note. SES = socioeconomic status.
[†] $p < .10$. * $p < .05$. ** $p < .01$.

Finally, we ran a trivariate dual-change score model including parental aspiration, mathematics achievement, and intelligence as assessed at Grades 5 through 10 in order to examine whether the reciprocal effects hold after controlling for intelligence as a time-varying variable. As in the main analysis, the variance of the intelligence slope factor and the covariance between the intelligence intercept and math achievement slope factors were fixed to zero to avoid improper solutions. The results showed substantial reduction in the effect of parental aspiration, indicating the importance of controlling for basic cognitive ability to examine parenting and academic growth, but the positive reciprocal coupling effects were still statistically significant ($\gamma_{\text{aspiration} \rightarrow \text{math}} = 0.413$, $p < .05$, and $\gamma_{\text{math} \rightarrow \text{aspiration}} = 0.001$, $p < .01$). These results provide further strong support for the reciprocal relations between parental aspiration and children's mathematical achievement.

Robustness check. To demonstrate that our results do not depend on a specific model that we applied (i.e., the bivariate dual-change score model), we ran a traditional cross-lagged model in which one variable at $T-1$ predicts the other variable at T after controlling for autoregressive ($T-1$) effects. To align the model with the dual-change score model, we did not incorporate any higher-order autoregressive and cross-lagged effects (e.g., the effects of parental aspiration at $T-2$ on children's mathematics achievement at T) and assumed stationarity of residuals and cross-lagged effects (i.e., the cross-lagged effects were fixed to be invariant across time points). Consistent with the findings obtained for the dual-change score model, the analysis showed that parental aspiration and children's math performance were linked by positive reciprocal effects. Specifically, the lagged effect of parental aspiration on math achievement was positive and statistically significant, $\gamma_{\text{aspiration} \rightarrow \text{math}} = 1.268$, $p < .01$, and the effect of math achievement on parental aspiration was also positive and statistically significant $\gamma_{\text{math} \rightarrow \text{aspiration}} = 0.005$, $p < .01$.

Parental Overaspiration and Children's Mathematics Achievement

To examine the relation between parental overaspiration and children's mathematical achievement, we computed the extent to which parents' aspiration exceeded their expectation for their children (i.e., parental aspiration minus parental expectation). For cases in which parental expectation was higher than parental aspiration (i.e., underaspiration), the value was set to zero, as our focus was parental overaspiration, not underaspiration (see the "Robustness check" section for further analyses using alternative indices). The newly created variable representing parental overaspiration showed a slight decrease over time, indicating that parents may become more realistic as their children grow up, M_s (SD_s) = 0.35 (0.52), 0.35 (0.52), 0.34 (0.52), 0.32 (0.52), 0.27 (0.48), and 0.20 (0.42) for 5th grade to 10th grade, respectively—the linear decreasing trend was statistically significant, $p < .01$. Unlike parental aspirations that decreased over time, as noted earlier, parental expectation did not increase or decrease over time, M_s (SD_s) = 4.62 (0.74), 4.55 (0.79), 4.51 (0.80), 4.53 (0.85), 4.59 (0.83), and 4.70 (0.87) for 5th to 10th grade, respectively—the linear trend was not statistically significant, $p = .28$. This pattern indicates that parents adjusted their aspiration rather than their expectation over time, implying that the change in overaspiration scores mainly reflects change in parental aspiration.

To illustrate how parental aspirations and parental expectations were associated, Table 2 includes a cross table of these two variables at Grade 5 (see Table S3 of the online supplemental materials for crosstabs for the other grade levels). More than half of the parents (57.8%) exhibited aspirations that matched their expectations, but more than 30% of the parents showed overaspiration.

Table S4 of the online supplemental materials reports the correlations of parental overaspiration scores with the other study variables. One remarkable observation is that parental overaspiration was negatively correlated with math achievement scores ($r_{\text{mean}} = -0.21$, $ps < .01$). This correlation suggests that parental overaspiration could have a detrimental effect on children's math achievement. Parental overaspiration was also negatively correlated with intelligence, but again, the relationship with intelligence seemed weaker ($r_{\text{mean}} = -0.16$, $ps < .01$). Consistent with previous studies (e.g., Boxer et al., 2011), parental overaspiration (i.e., the aspiration–expectation gap) was larger for parents from low-SES families ($r_{\text{mean}} = -0.09$, $ps < .01$). Parents' overaspiration did not differ depending on the gender of their children, but parents of children from higher- or intermediate-track school tended to have slightly smaller overaspiration scores than parents of children from lower-track schools (see Table S4).

Reciprocal effects. We again applied a bivariate dual-change score model to address the reciprocal relations between parental overaspiration and children's mathematical achievement. As in the analysis for parental aspiration, a preliminary analysis indicated that the variance of the overaspiration slope factor and the covariance between the overaspiration intercept and mathematical achievement slope factors were small, and that the small size of these estimates caused improper solutions in the basic model and more complicated models tested later. Therefore, we again fixed these parameters to zero. The dual-change score model fitted the data well, $\chi^2(72) = 740.0$, $p < .01$, CFI = .94, TLI = .94, RMSEA = .051.

Table 3 reports unstandardized parameter estimates from the dual-change score model (see Table S5 of the online supplemental materials for the full parameter estimates; for completeness, the full parameter estimates of a dual-change score model for parental expectations are also reported in Table S6). Importantly, the model showed reciprocal negative effects linking parental overaspiration and children's mathematical achievement performance over time. Specifically, the coupling effect of parental overaspiration on

Table 2
Cross Table for Parental Aspiration and Parental Expectation at Grade 5

		5th grade aspiration					
		1	2	3	4	5	6
5th grade expectation	1	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
	2	0.1%	0.0%	0.1%	0.3%	0.0%	0.0%
	3	0.0%	0.0%	0.4%	3.5%	0.7%	0.0%
	4	0.0%	0.0%	0.1%	14.8%	21.2%	1.0%
	5	0.0%	0.0%	0.1%	5.0%	37.4%	6.5%
	6	0.0%	0.0%	0.0%	0.2%	3.6%	5.1%

Note. Range of scores for aspiration and expectation: 1 = worst grade to 6 = best grade.

Table 3

Effects of Overaspiration: Unstandardized Parameter Estimates for the Dual-Change Score Model and the Multigroup Analyses, Including Gender, School Type, and Family SES

Parameters	Total	Children's gender		School type		Family SES	
		Male	Female	Lower + intermediate track	Higher track	Low SES	High SES
$\gamma_{\text{overaspiration} \rightarrow \text{math}}$	-3.319**	-2.537**	-4.124**	-1.486**	-3.502**	-2.918**	-3.442**
$\gamma_{\text{math} \rightarrow \text{overaspiration}}$	-0.001**	-0.001	-0.001*	-0.001**	-0.001†	-0.001*	-0.001*
$\beta_{\text{overaspiration}}$	-0.157**	-0.138**	-0.169**	-0.154**	-0.193**	-0.139**	-0.183**
β_{math}	-0.055**	-0.036**	-0.077**	0.006	-0.119**	-0.042**	-0.076**

Note. SES = socioeconomic status.

† $p < .10$. * $p < .05$. ** $p < .01$.

growth of math achievement was negative and statistically significant, $\gamma_{\text{overaspiration} \rightarrow \text{math}} = -3.319, p < .01$, indicating that a unit difference in parental overaspiration predicted a 3.319 point decrease in the change (i.e., growth) score of a child's mathematics achievement. Interestingly, the coupling effect of math achievement on change of parental overaspiration was also negative and statistically significant $\gamma_{\text{math} \rightarrow \text{overaspiration}} = -0.001, p < .01$, suggesting that higher achievement scores predicted a stronger decrease of parental overaspiration. These findings suggest that excessive parental aspiration can do harm to children's mathematical achievement over time.

Analysis with control variables. To ensure that the obtained findings were not an artifact produced by other variables, we conducted the same set of control variable analyses as with the aspiration data. First, we included children's gender, age at the first time point in months, intelligence at the first time point, school type, and family SES as time-invariant covariates by regressing slope and intercept factors on these control variables. The negative influence of parental overaspiration on the change in mathematics achievement remained statistically significant ($\gamma_{\text{overaspiration} \rightarrow \text{math}} = -1.987, p < .01$). The reverse negative effect also remained statistically significant ($\gamma_{\text{math} \rightarrow \text{overaspiration}} = -0.001, p < .01$).

Second, we conducted multigroup analyses to examine whether the parameter estimates differed between genders, school types, or families with different SES. As can be seen from Table 3, the results showed that the negative effects of parental overaspiration on change in mathematics achievement were robustly consistent across genders, school types, and SES: The negative coupling effects were statistically significant for all of the subgroups in these analyses, that is, for both male and female students, for students from all school tracks, and for students from high- versus low-SES families ($\gamma_{\text{overaspiration} \rightarrow \text{math}} = -4.124$ to $-1.486, ps < .01$). The negative coupling effects of math achievement on parental overaspiration also remained significant across groups, but not male students ($p = .12$) and higher-track schools ($p = .09$). Further analyses with chi-square difference tests indicated that the coupling effects ($\gamma_{\text{overaspiration} \rightarrow \text{math}}$ and $\gamma_{\text{math} \rightarrow \text{overaspiration}}$) did not statistically differ between males and females, $\chi^2(1) < 2.68, ns$, and between low- and high-SES groups, $\chi^2(1) < 0.32, ns$. The negative coupling effect of parental overaspiration on mathematics achievement, however, was significantly larger in higher-track schools compared with intermediate- and lower-track schools, $\gamma_{\text{overaspiration} \rightarrow \text{math}} = -3.502$ and -1.486 , respectively, $\chi^2(1) = 4.87, p < .05$, suggesting that parental overaspiration may have a

more deleterious influence for higher-track schoolchildren. The reverse coupling effect ($\gamma_{\text{math} \rightarrow \text{overaspiration}}$) did not significantly differ between the school types, $\chi^2(1) = 0.88, ns$.

Finally, we ran a trivariate dual-change score model including parental overaspiration, mathematical achievement, and intelligence as assessed at Grades 5 through 10 to examine whether the reciprocal effects remain after controlling for intelligence as a time-varying variable. The variance of the intelligence slope factor and the covariance between the intelligence intercept and math achievement slope factors were again fixed to zero. The results showed a substantial reduction in the effects of parental overaspiration, again indicating the importance of controlling for basic cognitive ability to examine parenting and academic growth, but the negative reciprocal coupling effects were still statistically significant ($\gamma_{\text{overaspiration} \rightarrow \text{math}} = -2.417, p < .01$, and $\gamma_{\text{math} \rightarrow \text{overaspiration}} = -0.001, ps < .01$). These results provide further strong support for the negative effect of parental overaspiration on children's mathematical achievement.

Robustness check. Again, to demonstrate that our results do not depend on the specific modeling approach we applied (i.e., the bivariate dual-change score model), we ran a traditional cross-lagged model. The model was specified in the same way as the cross-lagged model with parental aspirations. Consistent with the findings obtained in the dual-change score model, the analysis showed that parental overaspiration and children's math performance were linked by negative reciprocal effects. Specifically, the lagged effect of parental overaspiration on math achievement was negative and statistically significant, $\gamma_{\text{overaspiration} \rightarrow \text{math}} = -1.839, p < .01$, and the effect of math achievement on parental overaspiration was also negative and statistically significant, $\gamma_{\text{math} \rightarrow \text{overaspiration}} = -0.005, p < .01$.

Our operationalization of overaspiration does not allow parents who exhibited the highest level of parental expectations to have nonzero overaspiration scores (a version of a ceiling effect). To address this potential problem, and to address more general concerns about difference score approaches (e.g., Cohen, Cohen, West, & Aiken, 2003), we regressed parental aspiration on parental expectation and used positive residual scores as an alternative index of parental overaspiration. This new index also showed a significant negative coupling effect on growth of math achievement, $\gamma_{\text{overaspiration} \rightarrow \text{math}} = -4.054, p < .01$. A set of analyses including control variables did not change the results. To further examine the potential impact of ceiling effects, we estimated the dual-change score model after excluding parents who had the highest possible parental expectation scores (i.e., a score of 6) at

any single point of time (i.e., parents who cannot have positive overaspiration scores). The analysis with this restricted sample ($N = 2,947$) still showed statistically significant negative reciprocal effects ($\gamma_{\text{overaspiration} \rightarrow \text{math}} = -2.426, p < .01$ and $\gamma_{\text{math} \rightarrow \text{overaspiration}} = -0.001, p < .05$). These results indicate that our findings are not an artifact of using difference scores to operationalize parental overaspiration.

In addition, we examined whether parental underaspiration had an effect on achievement scores, in order to examine whether our findings were caused by parental overaspiration specifically rather than an aspiration–expectation gap more generally. We computed the extent to which parental aspiration was smaller than parental expectation (i.e., parental expectation minus parental aspiration, with values smaller than zero being truncated to zero), and applied a dual-change score model. The results showed no significant effects of parental underaspiration on math achievement scores, $\gamma_{\text{underaspiration} \rightarrow \text{math}} = -1.178, ns$. This finding indicates that the observed effect is specific to parental overaspiration, rather than being a case of more general aspiration–expectation discrepancy effects.

Replication With a New Data Set

Replication data and procedure. We further aimed to replicate the main findings with another data set. For that purpose, we used data from the Educational Longitudinal Study, 2002 (ELS: 2002; Ingels, Pratt, Rogers, Siegel, & Stutts, 2004) database. The publicly available database comes from a large-sample U.S. longitudinal study of 10th graders in 2002 and 12th graders in 2004, and this is the fourth in a series of longitudinal studies that was conducted by the National Center for Educational Statistics. Importantly, the data include both parental aspiration and expectation (parent reports) as well as students' mathematical achievement scores, making it possible to examine the effects of parental aspiration and overaspiration.

The study included a nationally representative sample of 16,197 10th graders (50.3% female) assessed in 2002 (at the time of the baseline assessment, mean age = 15.7 years). In the baseline assessment, mathematics achievement was assessed using a mix of multiple choice and open-ended items addressing simple mathematical skills, comprehension of mathematical concepts, and mathematical problem solving ability. We used the standardized scores available in the data set ($M = 50.71, SD = 9.91$). Parental aspiration was assessed by a single Likert-scale item asking how far in school the parent wanted their child to go (1 = less than high school graduation; 2 = high school graduation or GED [General Educational Development] only; 3 = attend or complete 2-year school course in a community or vocational school; 4 = attend college, but not complete a 4-year degree; 5 = graduate from college; 6 = obtain master's degree or equivalent; 7 = obtain PhD, MD, or other advanced degree). Parental expectations were assessed by a single item asking how far in school the parent expected their child to go, using the same Likert-type scale (1 to 7).

Math achievement scores were assessed again in a 2-year follow-up in 2004 ($N = 12,801$; 50.6% female), and this variable was used as the dependent variable. We also selected several control variables from the data set prior to the data analysis, including gender (male = 0, female = 1), school regions (two dummy variables: not urban = 0, urban = 1; and not rural = 0,

rural = 1), school type (private = 0, public = 1), and family SES (constructed from information about mother's and father's education, mother's and father's occupation, and family income; $M = -0.27, SD = 1.52$).

Results. As the data included only two time points and parental reports were obtained only at the baseline assessment, we conducted a simple lagged regression analysis. The full information maximum likelihood method was used to deal with missing data. Specifically, we examined parental aspiration (or overaspiration) as a predictor of mathematical achievement scores in the follow-up while controlling for mathematical achievement scores at the baseline. We included all of the control variables to address possible confounding effects.

The results are summarized in Table 4. In the parental aspiration regression analysis, gender, school region, school type, and family SES significantly predicted mathematics achievement at follow-up ($ps < .05$). Not surprisingly, baseline mathematics achievement also strongly predicted mathematics achievement, indicating the (interindividual) stability of math achievement scores over time ($B = 0.86, p < .01$). Importantly, parental aspiration positively predicted the follow-up mathematical achievement scores above and beyond the effects of the control variables ($B = 0.30, p < .01$), suggesting that parental aspiration had positive effects on change in children's mathematics achievement. These results replicate our findings on positive aspiration effects from the PALMA data.

Importantly, when we repeated the analysis by replacing parental aspiration with parental overaspiration (computed in the same manner as in the main study), this parental overaspiration model showed that parental overaspiration negatively predicted children's mathematical achievement scores at follow-up, above and beyond effects of the control variables ($B = -0.26, p < .01$). These results replicate the main results on the negative effects of overaspiration based on the PALMA data, demonstrating the robustness and cross-cultural generalizability of our findings.

Discussion

Previous research has repeatedly found a positive link between parental aspiration and children's attainment (Fan & Chen, 2001; Jeynes, 2007). The current research advanced these findings by investigating the issues that have not been sufficiently considered

Table 4
Replication Study: Unstandardized Parameter Estimates in Regression Analysis Predicting T2 Math Achievement From T1 Variables

Independent variables	Aspiration model	Overaspiration model
Baseline math achievement	0.864**	0.871**
Gender (female = 1, male = 0)	-0.411**	-0.424**
School region (urban = 1, not urban = 0)	0.036	0.113
School region (rural = 1, not rural = 0)	-0.278*	-0.358**
School type (public = 1, private = 0)	-0.881**	-0.856**
SES	0.899**	0.922**
Parental aspiration	0.297**	—
Parental overaspiration	—	-0.260**

Note. T1 = Time 1; T2 = Time 2; SES = socioeconomic status.
* $p < .05$. ** $p < .01$.

in the existing literature: the causal ordering of aspiration and achievement and potential adverse effects of parental overaspiration. Using large, intergenerational samples from Germany and the United States, multiwave study designs, and dual-change score modeling, we obtained support for the proposed reciprocal temporal ordering between parental aspiration and children's academic mathematical performance in a methodologically rigorous manner. More importantly, the findings also showed that parental aspiration can be detrimental for children's performance when aspiration exceeds expectation. These effects were robust across different types of analyses and after controlling for a variety of demographic and cognitive variables, including children's gender, age, intelligence, school type, and family SES. Use of dual-change score modeling allowed us to eliminate possible confounds inherent in standard cross-lagged analysis (see Hamaker et al., 2015). It is also worth noting that our work examined intergenerational relations between parental reports and children's actual academic achievement—this design feature enabled us to control for any systematic method or response bias, which typically substantially inflates estimated effects (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Effects of Aspiration: Theoretical and Practical Implications

Aspiration has been one of the key constructs over the past half century to understand how parents influence their children's academic attainment. In the 1960s, the importance of educational aspirations was highlighted by the influential Wisconsin model proposed by Sewell et al. (1969; see also Sewell & Shah, 1968). This model posited aspiration to be a crucial intervening variable that can explain intergenerational educational and occupational mobility (Blau & Duncan, 1967), thus adding perspectives on “soft” psychological factors to the “hard” structural relationship between SES and educational attainment. Sewell and colleagues indeed demonstrated that a substantial portion of the effects of SES and ability on occupational attainment is mediated by aspiration—the inclusion of aspiration considerably increased the explanatory power of the model.

Relatively independent from this line of research in sociology, the emergence of social-cognitive models in psychology also shed light on the important role of parental aspiration (or expectation) for children's academic achievement and behavior (e.g., Bandura et al., 1996; Parsons et al., 1982). Parental aspiration or expectation was deemed to be a critical construct because research on achievement motivation had demonstrated the critical role of expectancy beliefs in motivating human behavior (Atkinson, 1957; Bandura, 1977; Marsh & Parker, 1984; Pekrun, 1993; Rotter, 1966). In addition, research has shown that expectancy beliefs are sensitive to environmental cues, even in educational contexts (see Destin & Oyserman, 2009), suggesting the suitability of these constructs for designing educational interventions to improve children's performance. Given these long-standing research traditions in both psychology and sociology, it is rather surprising that the possible double-edged consequences of parental aspiration have not been scrutinized in empirical work. Our research represents a pioneering first step to investigate this possibility, thus opening a new avenue of research on this traditional topic.

Our research implies that it is essential to distinguish between “parental aspiration” and “parental expectation” to empirically understand the effects of parents' beliefs on their children. The importance of distinguishing parental aspiration from expectation has been discussed in the sociological literature but was not sufficiently attended to in psychology (Yamamoto & Holloway, 2010). One potentially interesting direction for future research would be to examine unique correlates that are specific to parental aspiration versus expectation (other than academic achievement), which could further clarify the specific roles of these constructs in children's socialization. Such studies could further reinforce the importance of clearly distinguishing between parental aspiration and expectation in empirical work. In that respect, it was intriguing that we found a negative effect of parental aspiration on math achievement after partialing out the variance explained by parental expectation (i.e., analysis with residual scores). This observation suggests that it may be the effects of the parental expectation component of parental aspiration, not parental aspiration per se, that drove the positive effects of parental aspiration observed in previous studies.

On a practical front, the current study findings highlight the danger of simply raising parental aspirations to promote children's academic achievement and behavioral adjustment. Much of the previous literature in psychology conveyed a simple, straightforward message to parents who want to enhance their children's academic performance—aim high for your children, and your aim will come true. In fact, aspiration has often been a main target for educational intervention programs. For example, during 2008, the U.K. government identified aspiration as a policy focus to improve students' engagement and academic achievement, and this initiative encouraged a number of educational intervention programs that aimed to enhance parental (and children's) aspiration (Lupton & Kintrea, 2011). Echoing this initiative, Cummings et al. (2012) conducted a literature review to evaluate the effectiveness of intervention programs that focused on attitudes (including educational aspiration) and academic attainment. This review, however, concluded that there was little evidence suggesting that the impact of intervention on academic achievement was mediated by changes in academic aspiration (although the authors were actually able to find few relevant studies in the review). The review also argued that the focus of interventions should not be on changing aspirations of parents and children per se—rather, it recommended focusing on facilitating opportunities and information for parents and children to develop realistic expectations. This recommendation is in line with the nuanced relationship between academic aspiration and achievement revealed in our study—unrealistically high aspiration may hinder academic performance; therefore, simply raising aspiration cannot be an effective solution to improve success in education.

Reciprocal Effects and Differences Between Groups

In addition to the findings on the effects of parents' aspirations, our results provided several interesting observations. First, we found reciprocal effects of children's academic achievement on their parents' aspiration (or overaspiration). Briley et al. (2014) called for research examining the positive reciprocal relationship between parental expectation and academic achievement, and provided evidence in support of this hypothesis, which highlights the

dynamic roles of both parents and children in socialization processes (Bell, 1968; Jacobs & Eccles, 2000). The current study not only replicated these findings but also uncovered a negative reciprocal relationship between parental overaspiration and children's achievement. Such a "vicious cycle" of reciprocal negative effects linking overaspiration and achievement may accumulate over years, possibly producing prolonged inimical consequences. As the negative effect of children's academic achievement on parental overaspiration seems somewhat weaker than the negative effect of parental overaspiration (i.e., effects of achievement on aspiration were not statistically significant in some of the analyses), further research is needed to examine the robustness and psychological mechanisms of these reverse effects.

Second, the effects of parental aspiration and overaspiration were even stronger for children in higher-track schools compared with those in intermediate- or lower-track schools. This finding may reflect a more competitive atmosphere in higher-track schools—in these schools, parental aspiration may be helpful to some extent, but parental overaspiration could easily turn into excessive pressure to achieve (see Murayama & Elliot, 2012, for the double-edged effects of competitive climate). This observation is also consistent with the idea in educational sociology that the effects of parental involvement on children's behavior would be magnified, whether positive or negative, for upper-middle-class families (Lareau, 1987; McNeal, 1999). This is partly because lower class families do not have enough resources to effectively translate their parental involvement (i.e., social capitals) into educational outcomes. It should be noted, however, that we did not find significant differences between low-SES and high-SES groups, despite the differences between school tracks. Thus, these explanations require further scrutiny in future research. Nevertheless, our findings suggest the importance of taking into account people's demographic background information while investigating the relationship between parental aspiration and children's outcomes.

Finally, our results were replicated with another large-sample longitudinal data set. These two data sets were different in several respects, suggesting generalizability of our findings. Most importantly, the two data sets differed in sociocultural context (Germany vs. the United States). Research has shown considerable cultural differences in parenting styles (Keller & Greenfield, 2000), but our findings suggest that the relations between parental aspiration (or overaspiration) and children's academic achievement are consistent across different cultural contexts. Furthermore, the two data sets are based on different items to assess parental aspiration and expectations. Our main data set (PALMA) asked for parental aspiration and expectations in terms of children's numeric grades ("We want our daughter/our son to get the following grade in mathematics"; "We believe that our daughter/our son can get the following grade in mathematics"). The replication data set (ELS: 2002) assessed the same constructs more broadly using an extended time frame—that is, aspirations and expectations were assessed in relation to children's long-term educational career (i.e., how far in school do parents want their child to go, how far in school do parents expect their child will go). The fact that we observed similar results for these two types of variables may indicate that our findings are not dependent on the wording of items or the time scope of parental aspiration and expectations.

Conclusion

In summary, the present research revealed both positive and negative aspects of parents' aspiration for their children's academic performance. Although parental aspiration is an important vehicle through which children's academic potential can be realized, excessive parental aspiration can be poisonous. A possible next step would be to examine the mechanisms underlying this detrimental effect. Excessive parental control (Grolnick, 2003) or parental overinvolvement (Hudson & Dodd, 2012) could be factors that may mediate the negative relation between parental overaspiration and children's achievement. On the children's side, decreased self-efficacy (Chorpita & Barlow, 1998) and negative achievement emotions, such as achievement anxiety (Pekrun, 2006) or frustration (Higgins, 1987), may contribute to the negative effects resulting from parental overaspiration and control. Parent-child conflict (see Fuligni & Eccles, 1993) may also be an important intergenerational factor driving the effect. Developing theoretical models and pursuing empirical research that incorporates these factors would provide a more fine-grained picture and could open a new avenue for research on the relevance of parental aspirations for children's academic achievement and their personality development more broadly.

References

- Arbona, C. (1990). Career counseling research and Hispanics: A review of the literature. *The Counseling Psychologist, 18*, 300–323. <http://dx.doi.org/10.1177/0011000090182012>
- Astone, N. M., & McLanahan, S. S. (1991). Family structure, parental practices and high school completion. *American Sociological Review, 56*, 309–320. <http://dx.doi.org/10.2307/2096106>
- Atkinson, J. W. (1957). Motivational determinants of risk-taking behavior. *Psychological Review, 64*, 359–372. <http://dx.doi.org/10.1037/h0043445>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191–215. <http://dx.doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development, 67*, 1206–1222. <http://dx.doi.org/10.2307/1131888>
- Baumeister, R. F. (1989). The optimal margin of illusion. *Journal of Social and Clinical Psychology, 8*, 176–189. <http://dx.doi.org/10.1521/jscp.1989.8.2.176>
- Bell, R. Q. (1968). A reinterpretation of the direction of effects in studies of socialization. *Psychological Review, 75*, 81–95. <http://dx.doi.org/10.1037/h0025583>
- Blau, P. M., & Duncan, O. D. (1967). *The American occupational structure*. New York, NY: Wiley.
- Boxer, P., Goldstein, S. E., DeLorenzo, T., Savoy, S., & Mercado, I. (2011). Educational aspiration-expectation discrepancies: Relation to socioeconomic and academic risk-related factors. *Journal of Adolescence, 34*, 609–617. <http://dx.doi.org/10.1016/j.adolescence.2010.10.002>
- Briley, D. A., Harden, K. P., & Tucker-Drob, E. M. (2014). Child characteristics and parental educational expectations: Evidence for transmission with transaction. *Developmental Psychology, 50*, 2614–2632. <http://dx.doi.org/10.1037/a0038094>
- Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of environmental processes. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology* (5th ed., Vol. 1, pp. 903–1028). New York, NY: Wiley.

- Cahan, S., & Cohen, N. (1989). Age versus schooling effects on intelligence development. *Child Development, 60*, 1239–1249. <http://dx.doi.org/10.2307/1130797>
- Carpenter, D. M., II. (2008). Expectations, aspirations, and achievement among Latino students of immigrant families. *Marriage & Family Review, 43*, 164–185. <http://dx.doi.org/10.1080/01494920802013078>
- Chorpita, B. F., & Barlow, D. H. (1998). The development of anxiety: The role of control in the early environment. *Psychological Bulletin, 124*, 3–21. <http://dx.doi.org/10.1037/0033-2909.124.1.3>
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.
- Cook, T. D., Church, M. B., Ajanaku, S., Shadish, W. R., Jr., Kim, J.-R., & Cohen, R. (1996). The development of occupational aspirations and expectations among inner-city boys. *Child Development, 67*, 3368–3385. <http://dx.doi.org/10.2307/1131783>
- Cummings, C., Laing, K., Law, J., McLaughlin, J., Papps, I., Todd, L., & Woolner, P. (2012). *Can changing aspirations and attitudes impact on educational attainment?* York, UK: Joseph Rowntree Foundation.
- Davis-Kean, P. E. (2005). The influence of parent education and family income on child achievement: The indirect role of parental expectations and the home environment. *Journal of Family Psychology, 19*, 294–304.
- De Civita, M., Pagani, L., Vitaro, F., & Tremblay, R. E. (2004). The role of maternal educational aspirations in mediating the risk of income source on academic failure in children from persistently poor families. *Children and Youth Services Review, 26*, 749–769. <http://dx.doi.org/10.1016/j.childyouth.2004.02.019>
- Destin, M., & Oyserman, D. (2009). From assets to school outcomes: How finances shape children's perceived possibilities and intentions. *Psychological Science, 20*, 414–418. <http://dx.doi.org/10.1111/j.1467-9280.2009.02309.x>
- Duncan, T. E., Duncan, S. C., & Strycker, L. A. (2006). *An introduction to latent variable growth curve modeling: Concepts, issues, and applications* (2nd ed.). Mahwah, NJ: Erlbaum.
- Eccles, J. S., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology* (5th ed., Vol. 3, pp. 1017–1095). New York, NY: Wiley.
- Elliott, W., III. (2009). Children's college aspirations and expectations: The potential role of children's development accounts (CDAs). *Children and Youth Services Review, 31*, 274–283. <http://dx.doi.org/10.1016/j.childyouth.2008.07.020>
- Enders, C. K. (2010). *Applied missing data analysis*. New York, NY: Guilford Press.
- Erikson, R., Goldthorpe, J. H., & Portocarero, L. (1979). Intergenerational class mobility in three Western European societies: England, France and Sweden. *The British Journal of Sociology, 30*, 415–441. <http://dx.doi.org/10.2307/589632>
- Fan, X. T., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review, 13*, 1–22. <http://dx.doi.org/10.1023/A:1009048817385>
- Ferrer, E., & McArdle, J. (2003). Alternative structural models for multivariate longitudinal data analysis. *Structural Equation Modeling, 10*, 493–524. http://dx.doi.org/10.1207/S15328007SEM1004_1
- Finkel, S. E. (1995). *Causal analysis with panel data*. Thousand Oaks, CA: Sage. <http://dx.doi.org/10.4135/9781412983594>
- Frenzel, A. C., Pekrun, R., Dicke, A.-L., & Goetz, T. (2012). Beyond quantitative decline: Conceptual shifts in adolescents' development of interest in mathematics. *Developmental Psychology, 48*, 1069–1082. <http://dx.doi.org/10.1037/a0026895>
- Frome, P. M., & Eccles, J. S. (1998). Parents' influence on children's achievement-related perceptions. *Journal of Personality and Social Psychology, 74*, 435–452. <http://dx.doi.org/10.1037/0022-3514.74.2.435>
- Fuligni, A. J., & Eccles, J. S. (1993). Perceived parent-child relationships and early adolescents' orientation toward peers. *Developmental Psychology, 29*, 622–632. <http://dx.doi.org/10.1037/0012-1649.29.4.622>
- Goldenberg, C., Gallimore, R., Reese, L., & Garnier, H. (2001). Cause or effect? A longitudinal study of immigrant Latino parents' aspirations and expectations, and their children's school performance. *American Educational Research Journal, 38*, 547–582. <http://dx.doi.org/10.3102/00028312038003547>
- Graham, S. (2015). Inaugural editorial for the Journal of Educational Psychology. *Journal of Educational Psychology, 107*, 1–2. <http://dx.doi.org/10.1037/edu0000007>
- Grolnick, W. S. (2003). *The psychology of parental control: How well-meant parenting backfires*. Mahwah, NJ: Erlbaum.
- Grolnick, W. S., & Slowiaczek, M. L. (1994). Parents' involvement in children's schooling: A multidimensional conceptualization and motivational model. *Child Development, 65*, 237–252. <http://dx.doi.org/10.2307/1131378>
- Halle, T. G., Kurtz-Costes, B., & Mahoney, J. L. (1997). Family influences on school achievement in low-income, African American children. *Journal of Educational Psychology, 89*, 527–537. <http://dx.doi.org/10.1037/0022-0663.89.3.527>
- Hamaker, E. L., Kuiper, R. M., & Grasman, R. P. P. P. (2015). A critique of the cross-lagged panel model. *Psychological Methods, 20*, 102–116. <http://dx.doi.org/10.1037/a0038889>
- Hanson, S. L. (1994). Lost talent: Unrealized educational aspirations and expectations among U.S. youths. *Sociology of Education, 67*, 159–183. <http://dx.doi.org/10.2307/2112789>
- Heller, K., & Perleth, C. (2000). *Kognitiver Fähigkeitstest für 4. bis 12. Klassen, Revision (KFT 4–12+ R)* [Cognitive Abilities Test for grades 4 to 12, revision (KFT 4–12+ R)]. Göttingen, Germany: Hogrefe.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*, 319–340. <http://dx.doi.org/10.1037/0033-295X.94.3.319>
- Holloway, R. G., & Berreman, J. V. (1959). The educational and occupational aspirations and plans of Negro and White male elementary school students. *Pacific Sociological Review, 2*, 56–60. <http://dx.doi.org/10.2307/1388369>
- Hudson, J. L., & Dodd, H. F. (2012). Informing early intervention: Pre-school predictors of anxiety disorders in middle childhood. *PLoS ONE, 7*, e42359. <http://dx.doi.org/10.1371/journal.pone.0042359>
- Ingels, S. J., Pratt, D. J., Rogers, J. E., Siegel, P. H., & Stutts, E. S. (2004). *Education Longitudinal Study of 2002: Base year data file user's manual (NCES 2004.405)*. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Jacobs, J. E., & Eccles, J. S. (2000). Parents, task values, and real-life achievement-related choices. In C. Sansone & J. M. Harackiewicz (Eds.), *Intrinsic motivation* (pp. 405–439). San Diego, CA: Academic Press.
- Jeynes, W. H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education, 40*, 237–269. <http://dx.doi.org/10.1177/0042085905274540>
- Jeynes, W. H. (2007). The relationship between parental involvement and urban secondary school student academic achievement: A meta-analysis. *Urban Education, 42*, 82–110.
- Jeynes, W. H. (2011). Aspiration and expectations: Providing pathways to tomorrow. In S. Redding, M. Murphy, & P. Sheley (Eds.), *Handbook on family and community engagement* (pp. 57–59). Lincoln, IL: Academic Development Institute/Center on Innovation & Improvement.
- Juang, L. P., & Silbereisen, R. K. (2002). The relationship between adolescent academic capability beliefs, parenting and school grades. *Journal of Adolescence, 25*, 3–18. <http://dx.doi.org/10.1006/jado.2001.0445>

- Keller, H., & Greenfield, P. M. (2000). History and future of development in cross-cultural psychology. *Journal of Cross-Cultural Psychology, 31*, 52–62. <http://dx.doi.org/10.1177/0022022100031001005>
- Kerckhoff, A. C. (1976). The status attainment process: Socialization or allocation? *Social Forces, 55*, 368–381. <http://dx.doi.org/10.1093/sf/55.2.368>
- Kirk, C. M., Lewis, R. K., Scott, A., Wren, D., Nilsen, C., & Colvin, D. Q. (2012). Exploring the educational aspirations–expectations gap in eighth grade students: Implications for educational interventions and school reform. *Educational Studies, 38*, 507–519. <http://dx.doi.org/10.1080/03055698.2011.643114>
- Lareau, A. (1987). Social class differences in family-school relationships: The importance of cultural capital. *Sociology of Education, 60*, 73–85. <http://dx.doi.org/10.2307/2112583>
- Large, M. D., & Marcussen, K. (2000). Extending identity theory to predict differential forms and degrees of psychological stress. *Social Psychology Quarterly, 63*, 49–59. <http://dx.doi.org/10.2307/2695880>
- Lupton, R., & Kintrea, K. (2011). Can community-based interventions on aspirations raise young people's attainment? *Social Policy and Society, 10*, 321–335. <http://dx.doi.org/10.1017/S1474746411000054>
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*, 954–969. <http://dx.doi.org/10.1037/0003-066X.41.9.954>
- Marsh, H. W., & Parker, J. W. (1984). Determinants of student self-concept: Is it better to be a relatively large fish in a small pond even if you don't learn to swim as well? *Journal of Personality and Social Psychology, 47*, 213–231. <http://dx.doi.org/10.1037/0022-3514.47.1.213>
- McArdle, J. J. (2009). Latent variable modeling of differences and changes with longitudinal data. *Annual Review of Psychology, 60*, 577–605. <http://dx.doi.org/10.1146/annurev.psych.60.110707.163612>
- McArdle, J. J., & Anderson, E. (1990). Latent variable growth models for research on aging. In J. E. Birren & K. W. Schaie (Eds.), *Handbook of the psychology of aging* (3rd ed., pp. 21–44). San Diego, CA: Academic Press.
- McArdle, J. J., & Hamagami, F. (2001). Latent difference score structural models for linear dynamic analyses with incomplete longitudinal data. In L. Collins & A. Sayer (Eds.), *New methods for the analysis of change* (pp. 139–175). Washington, DC: American Psychological Association.
- McNeal, R. B. (1999). Parental involvement as social capital: Differential effectiveness on science achievement, truancy, and dropping out. *Social Forces, 78*, 117–144. <http://dx.doi.org/10.1093/sf/78.1.117>
- Metz, A. J., Fouad, N., & Ihle-Helledy, K. (2009). Career aspirations and expectations of college students: Demographic and labor market comparisons. *Journal of Career Assessment, 17*, 155–171. <http://dx.doi.org/10.1177/1069072708328862>
- Mickelson, R. A. (1990). The attitude-achievement paradox among black adolescents. *Sociology of Education, 63*, 44–61. <http://dx.doi.org/10.2307/2112896>
- Murayama, K., & Elliot, A. J. (2012). The competition-performance relation: A meta-analytic review and test of the opposing processes model of competition and performance. *Psychological Bulletin, 138*, 1035–1070. <http://dx.doi.org/10.1037/a0028324>
- Murayama, K., Pekrun, R., Lichtenfeld, S., & vom Hofe, R. (2013). Predicting long-term growth in students' mathematics achievement: The unique contributions of motivation and cognitive strategies. *Child Development, 84*, 1475–1490. <http://dx.doi.org/10.1111/cdev.12036>
- Muthén, L. K., & Muthén, B. O. (2004). *Mplus user's guide*. Los Angeles, CA: Author.
- Neuenschwander, M. P., Vida, M., Garrett, J. L., & Eccles, J. S. (2007). Parents' expectations and students' achievement in two western nations. *International Journal of Behavioral Development, 31*, 594–602. <http://dx.doi.org/10.1177/0165025407080589>
- Okagaki, L., & Frensch, P. A. (1998). Parenting and children's school achievement: A multiethnic perspective. *American Educational Research Journal, 35*, 123–144. <http://dx.doi.org/10.3102/00028312035001123>
- Okagaki, L., & Sternberg, R. J. (1993). Parental beliefs and children's school performance. *Child Development, 64*, 36–56. <http://dx.doi.org/10.2307/1131436>
- Oyserman, D. (2013). Not just any path: Implications of identity-based motivation for disparities in school outcomes. *Economics of Education Review, 33*, 179–190. <http://dx.doi.org/10.1016/j.econedurev.2012.09.002>
- Oyserman, D., & Markus, H. R. (1990). Possible selves and delinquency. *Journal of Personality and Social Psychology, 59*, 112–125. <http://dx.doi.org/10.1037/0022-3514.59.1.112>
- Parsons, J. E., Adler, T. F., & Kaczala, C. M. (1982). Socialization of achievement attitudes and beliefs: Parental influences. *Child Development, 53*, 310–321. <http://dx.doi.org/10.2307/1128973>
- Pearce, R. R. (2006). Effects of cultural and social structural factors on the achievement of white and Chinese American students at school transition points. *American Educational Research Journal, 43*, 75–101. <http://dx.doi.org/10.3102/00028312043001075>
- Pekrun, R. (1993). Facets of students' academic motivation: A longitudinal expectancy-value approach. In M. L. Maehr, & P. R. Pintrich (Eds.), *Advances in motivation and achievement* (Vol. 8, pp. 139–189). Greenwich, CT: JAI Press.
- Pekrun, R. (2006). The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational Psychology Review, 18*, 315–341. <http://dx.doi.org/10.1007/s10648-006-9029-9>
- Pekrun, R., vom Hofe, R., Blum, W., Frenzel, A. C., Goetz, T., & Wartha, S. (2007). Development of mathematical competencies in adolescence: The PALMA longitudinal study. In M. Prenzel (Ed.), *Studies on the educational quality of schools* (pp. 17–37). Munster, Germany: Waxmann.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879–903. <http://dx.doi.org/10.1037/0021-9010.88.5.879>
- Robins, R. W., & Beer, J. S. (2001). Positive illusions about the self: Short-term benefits and long-term costs. *Journal of Personality and Social Psychology, 80*, 340–352. <http://dx.doi.org/10.1037/0022-3514.80.2.340>
- Rogosa, D. (1980). A critique of cross-lagged correlations. *Psychological Bulletin, 88*, 245–258. <http://dx.doi.org/10.1037/0033-2909.88.2.245>
- Roth, G., Assor, A., Niemiec, C. P., Deci, E. L., & Ryan, R. M. (2009). The emotional and academic consequences of parental conditional regard: Comparing conditional positive regard, conditional negative regard, and autonomy support as parenting practices. *Developmental Psychology, 45*, 1119–1142. <http://dx.doi.org/10.1037/a0015272>
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied, 80*, 1–28. <http://dx.doi.org/10.1037/h0092976>
- Rutherford, T. (2015). Emotional well-being and discrepancies between child and parent educational expectations and aspirations in middle and high school. *International Journal of Adolescence and Youth, 20*, 69–85. <http://dx.doi.org/10.1080/02673843.2013.767742>
- Scalas, L. F., Marsh, H. W., Morin, A. J. S., & Nagengast, B. (2014). Why is support for Jamesian actual-ideal discrepancy model so elusive? *Personality and Individual Differences, 69*, 62–68. <http://dx.doi.org/10.1016/j.paid.2014.05.010>
- Sewell, W. H., Haller, A. O., & Ohlendorf, G. W. (1970). The educational and early occupational attainment process: Replications and revisions. *American Sociological Review, 35*, 1014–1027. <http://dx.doi.org/10.2307/2093379>

- Sewell, W. H., Haller, A. O., & Portes, A. (1969). The educational and early occupational attainment process. *American Sociological Review*, *34*, 82–92. <http://dx.doi.org/10.2307/2092789>
- Sewell, W. H., & Shah, V. P. (1968). Social class, parental encouragement, and educational aspirations. *AJS; American Journal of Sociology*, *73*, 559–572. <http://dx.doi.org/10.1086/224530>
- Shute, V. J., Hansen, E. G., Underwood, J. S., & Razzouk, R. (2011). A review of the relationship between parental involvement and secondary school students' academic achievement. *Education Research International*, *2011*, 915326. <http://dx.doi.org/10.1155/2011/915326>
- Skinner, C., Holt, D., & Smith, T. (1989). *Analysis of complex surveys*. New York, NY: Wiley.
- Stephenson, R. M. (1957). Mobility orientation and stratification of 1,000 ninth graders. *American Sociological Review*, *22*, 204–212. <http://dx.doi.org/10.2307/2088859>
- Strauman, T. J., & Higgins, E. T. (1987). Automatic activation of self-discrepancies and emotional syndromes: When cognitive structures influence affect. *Journal of Personality and Social Psychology*, *53*, 1004–1014. <http://dx.doi.org/10.1037/0022-3514.53.6.1004>
- Trusty, J. (2002). African Americans' educational expectations: Longitudinal causal models for women and men. *Journal of Counseling & Development*, *80*, 332–345. <http://dx.doi.org/10.1002/j.1556-6678.2002.tb00198.x>
- Usami, S., Hayes, T., & McArdle, J. J. (in press). On the mathematical relationship between latent change score model and autoregressive cross-lagged factor approaches: Cautions for assessing causality between variables. *Multivariate Behavioral Research*.
- vom Hofe, R., Pekrun, R., Kleine, M., & Götz, T. (2002). Projekt zur Analyse der Leistungsentwicklung in Mathematik (PALMA): Konstruktion des Regensburger Mathematikleistungstests für 5.–10. Klassen [Project for the Analysis of Learning and Achievement in Mathematics (PALMA): Development of the Regensburg Mathematics Achievement Test for Grades 5 to 10]. *Zeitschrift für Pädagogik*, *45*(Suppl.), 83–100.
- Weinstein, N. D. (1980). Unrealistic optimism about future life events. *Journal of Personality and Social Psychology*, *39*, 806–820. <http://dx.doi.org/10.1037/0022-3514.39.5.806>
- Yamamoto, Y., & Holloway, S. (2010). Parental expectations and children's academic performance in sociocultural context. *Educational Psychology Review*, *22*, 189–214. <http://dx.doi.org/10.1007/s10648-010-9121-z>
- Zhang, Y., Haddad, E., Torres, B., & Chen, C. (2011). The reciprocal relationships among parents' expectations, adolescents' expectations, and adolescents' achievement: A two-wave longitudinal analysis of the NELS data. *Journal of Youth and Adolescence*, *40*, 479–489. <http://dx.doi.org/10.1007/s10964-010-9568-8>

Received May 28, 2015

Revision received September 29, 2015

Accepted September 30, 2015 ■

Client Perceptions of Corrective Experiences in Cognitive Behavioral Therapy and Motivational Interviewing for Generalized Anxiety Disorder: An Exploratory Pilot Study

Jasmine Khattrra, Lynne Angus,
Henny Westra, and Christianne Macaulay
York University

Kathrin Moertl
Sigmund Freud Private University

Michael Constantino
University of Massachusetts Amherst

The purpose of the present study was to qualitatively investigate clients' posttherapy accounts of corrective experiences—a proposed common factor and integrative principle of therapeutic change (Castonguay & Hill, 2012)—after completion of either a brief cognitive behavioral therapy (CBT) or motivational interviewing (MI) integrated with CBT (MI-CBT) for generalized anxiety disorder (GAD; Westra, Constantino, & Antony, 2016). Patients' Perceptions of Corrective Experiences in Individual Therapy (PCEIT; Constantino, Angus, Friedlander, Messer, & Heatherington, 2011) semistructured interviews were completed at therapy termination with 1 MI-CBT client and 1 CBT-only client who met the criteria for recovery. The PCEIT interviews were audiorecorded, transcribed, and subjected to a grounded theory analysis using qualitative research methods software (ATLAS.ti). Findings indicated that both clients reported positive shifts in their experience of anxiety and increased agency in interpersonal relationships. In particular, the client undergoing integrative MI-CBT treatment reported increased confidence in her own ability to maintain positive changes posttherapy, while the CBT-only client expressed confidence in her application of CBT tools and skills to maintain therapy outcomes. The MI-CBT client attributed the shifts she experienced in therapy to an increased awareness and confidence in her own agency, indicating a potential corrective experience of self, whereas the CBT-only client attributed the positive shifts she experienced to the expertise provided by the therapist. Future research directions are discussed, in addition to implications of integrative CBT approaches, for enhanced clinical outcomes.

Keywords: corrective experience, cognitive behavioral therapy, motivational interviewing, generalized anxiety disorder, shifts in therapy

Alexander and French (1946) introduced the therapeutic principle of corrective emotional experience to describe how patients repair maladaptive interpersonal patterns in the context of

transference-focused, psychodynamic therapy sessions. Specifically, they posited that when psychodynamic therapists provide an opportunity to reexperience and understand early emotional conflicts in the context of a safe, responsive therapeutic relationship, clients begin to challenge and revise negative beliefs and expectations about themselves and others. The definition and nature of corrective emotional experiences has been extensively debated and theorized (Palvarini, 2010) since Alexander and French's original publication in 1946. A shared consensus on what is corrective, what gets corrected, and the mechanisms that underlie meaningful corrective shifts for clients in psychother-

This article was published Online First August 8, 2016.

Jasmine Khattrra, Lynne Angus, Henny Westra, and Christianne Macaulay, Department of Psychology, York University; Kathrin Moertl, Department of Psychology, Sigmund Freud Private University; Michael Constantino, Department of Psychology, University of Massachusetts Amherst.

Correspondence concerning this article should be addressed to Jasmine Khattrra, Department of Psychology, York University, Graduate Psychology Office 297, Behavioural Science Building (BSB), 4700 Keele Street, Toronto, ON M3J 1P3. E-mail: jaskh@yorku.ca

apy has nonetheless eluded psychotherapy researchers and practitioners, perhaps because the construct has traditionally been framed in psychodynamic terms, limiting the scope of research inquiry into the nature of corrective experiences (CEs) in therapy.

In a recent effort to address this gap in the psychotherapy research and practice literature, Castonguay and Hill (2012) proposed a pantheoretical, integrative definition of CEs in psychotherapy: “ones in which a person comes to understand or experience affectively an event or a relationship in a different or unexpected way” (p. 5).

Throughout the remainder of this paper, we use the term *corrective experience* to indicate this broader, pantheoretical definition proposed by Castonguay and Hill (2012). The purpose of arriving at this broader definition was to invite future psychotherapy research studies addressing client CEs from differing theoretical orientations and psychotherapy models (Castonguay & Hill, 2012). CEs differ from positive outcomes of therapy in that CEs are novel, personally significant, surprising, disconfirming of past experiences, and/or can have a significant impact on the clients’ understanding of the self, the world, and intra- and interpersonal patterns, along with concrete shifts in their thoughts, feelings, and behaviors. There may be overlap in clients’ accounts of positive outcomes of therapy and CEs, given that both can be emotional, cognitive, behavioral, or relational in nature. However, further research on clients’ perspectives of CEs can clarify the current conceptualization of CEs, which to date includes mostly psychotherapists’—rather than clients’—understanding of CEs.

Building on this integrative research initiative, the primary goal of the present exploratory study was to investigate the presence and nature of CEs in two clients’ firsthand accounts of their experience of cognitive behavioral therapy (CBT) and CBT integrated with motivational interviewing (MI) for generalized anxiety disorder (GAD; Westra, Constantino, & Antony, 2016). Specifically, the present study aimed to identify preliminary evidence for the validity of the updated, integrative, pantheoretical definition of CE and potential themes to inform a future larger study on CEs in the same clinical sample.

Investigating Client CEs in CBT

Heatherington, Constantino, Friedlander, Angus, and Messer (2012) conducted a multisite study to investigate clients’ ($N = 76$) first-person accounts of CEs immediately after every fourth therapy session. Clients were asked to describe *what* changed (“Have there been any times since you started the present therapy that you have become aware of an important or meaningful change[s] in your thinking, feeling, behavior, or relationships?”) and *how* they thought the change had occurred (“If yes, what do you believe took place during or between your therapy sessions that led to such change[s]?”). For clients engaged in CBT, five key themes emerged from the qualitative analysis of postsession accounts addressing *what* changed in therapy sessions: acquisition and use of new skills, recognition of hope, a more positive sense of self, specific changes in behavior (such as reduction in psychological symptoms or a shift in interpersonal patterns), and new cognitive perspectives on life and interpersonal relationships. In terms of perceptions of *how* change happens, the most commonly cited CBT therapist interventions were providing a new understanding of the client’s problems; giving advice; teaching specific techniques; and observing client patterns of thoughts, feelings, and behaviors. Themes pertaining to clients’ contributions to the change process included greater awareness and self-reflection, implementing specific techniques learned in therapy to daily life, and cooperating with the therapist (Heatherington et al., 2012). While these findings provided an interesting window into clients’ perceptions of postsession change in CBT, the analyses were limited by the brevity of postsession written accounts and the absence of information regarding client pretreatment diagnosis and outcome status at treatment termination and follow-up.

In order to help address these methodological gaps in future studies, Constantino, Angus, Friedlander, Messer, and Heatherington (2011) codeveloped a posttreatment interview protocol called Patients’ Perceptions of Corrective Experiences in Individual Therapy (PPCEIT). The PPCEIT interview protocol is a semistructured interview containing 10 open-ended questions divided into four sections. The sections ask clients to identify and elaborate on (a) the primary

reasons that they sought out therapy; (b) what significant shifts the client experienced in his or her view of self, life, interpersonal relationships, and problematic patterns; (c) the client's attributions for meaningful shifts in therapy, focusing on specific significant or unexpected incidents or therapist interactions; and (d) any other meaningful experiences in therapy and their overall experience of participating in the interview.

While previous posttherapy interview protocols have investigated clients' retrospective perceptions of psychotherapy (change interview: Elliott, Slatick, & Urman, 2001; narrative assessment interview: Hardtke & Angus, 2004; Kertes, Westra, Angus, & Marcus, 2011), the PPCEIT interview protocol (Constantino et al., 2011) is unique in that it addresses not only what clients perceive to be corrective about their experiences in psychotherapy but also inquires about their own personal understanding of how those changes occurred. Specifically, questions posed in the what shifted domain provide clients with an opportunity to identify meaningful shifts in multiple areas of their lives, such as their view of self, outlook on life, interpersonal relationships, thoughts, feelings, behaviors, and problematic patterns. Similarly, questions in the how shifts occur domain probe for specific moments within therapy and the therapeutic relationship that lead to shifts, which is unique to the PPCEIT interview protocol. This additional element appears to contribute important information to our understanding of CEs. For example, Friedlander and colleagues (2012) administered the PPCEIT interview protocol to investigate client CEs in one good-outcome client engaged in short-term dynamic psychotherapy. In terms of therapeutic change, the client identified resolution of unfinished business from childhood and more adaptive interpersonal relationships as CEs at therapy termination and attributed these shifts to the motivation, safety, and acceptance provided by her psychodynamic therapist.

To date, no studies have investigated client posttherapy accounts of CEs in mainstream therapy approaches such as CBT for depression or GAD. While research evidence generally supports the efficacy of CBT for GAD (see Covin, Ouimet, Seeds, & Dozois, 2008), a substantial number of clients fail to fully recover by treatment termination and follow-up (Westen &

Morrison, 2001). As such, many questions still remain as to the specific relational or treatment factors in brief CBT treatment protocols that contribute to clients' sustained recovery from GAD. For example, it may be the case that recovered clients experience shifts in their understanding of the self or in relation to the therapist (i.e., a CE) above and beyond learning and applying CBT skills for managing worry and anxiety. The randomized controlled trial (RCT) from which the present study's participants were drawn included clients who received CBT alone and clients who received MI integrated with CBT (Westra et al., 2016). Importantly, MI emphasizes the importance of the therapeutic relationship, empathic exploration of client values and identity, and heightening client collaboration and agency in the change process (Westra, 2012). As such, this study sample thus represents an opportunity to elucidate key distinctions between the types of changes clients experienced in therapy, such as distinctions between symptom level and gaining expertise in CBT skills changes, versus higher order shifts in experience or understanding of the self, events, or relationships (i.e., CEs).

The Current Study

The present study conducted a qualitative analysis of client accounts of meaningful shifts experienced in the context of an RCT of CBT versus Motivational Interviewing integrated with CBT (MI-CBT) for GAD (Westra et al., 2016) using the PPCEIT interview protocol (Constantino et al., 2011). Qualitative analyses of the protocol were guided by the following exploratory research questions: (a) What core themes emerge from clients' verbal accounts of perceived meaningful and significant shifts in CBT and MI-CBT for GAD? and (b) What core themes emerge from clients' verbal accounts of how those shifts occurred?

In order to investigate client accounts of meaningful shifts in CBT and MI-CBT, the PPCEIT interview protocol (Constantino et al., 2011) was administered to one recovered CBT client and one recovered MI-CBT client who completed the semistructured interview protocol at treatment termination. The interviews were audiorecorded, transcribed, and subjected to a grounded theory analysis using qualitative research methods software, ATLAS.ti (Muhr,

1997), to generate themes. Selecting a client from each treatment condition for this pilot study allowed an initial comparison of the impact of treatment differences that emerged in the results to be explored in future larger samples.

Method

Participants

Selection pool. Client posttreatment accounts were solicited in the context of a larger RCT (Westra et al., 2016) of CBT versus CBT integrated with MI for GAD. Participants had a principal diagnosis of GAD as assessed by a modified Structured Clinical Interview for *DSM-IV-TR* Axis I Disorders (SCID-IP; First, Spitzer, Gibbon, & Williams, 2002) and a score above the cutoff for high-severity GAD on the Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990). Participants ($N = 85$) were randomly assigned to either receive 15 weekly sessions of CBT or four individual MI sessions prior to receiving 11 weekly CBT sessions (MI-CBT), integrated with MI as needed. A total of 19 posttherapy interviews were randomly conducted by two of the authors who were trained in the administration of the PPCEIT interview protocol (Constantino et al., 2011). The two clients included in the current study were selected because they were the first pair (i.e., one from each treatment condition) of interviewees who met the recovered status at treatment termination and had thorough interviews.

Reliable change index (Jacobson & Truax, 1991) analyses of the PSWQ (Meyer et al., 1990) scores at posttreatment were conducted to determine the outcome status categorization of the CBT-only and MI-CBT client for inclusion in the current study. Both clients were considered recovered at treatment termination. However, the CBT client relapsed, while the MI-CBT client was still considered recovered at 12 months follow-up. It should be noted that the 12-month follow-up scores were made available to the authors after the qualitative analyses of the current study had already been completed. The trend in PSWQ scores of the two clients is consistent with the overall RCT results that show a consistent, significant pattern across self-report and diagnostic measures, indicating increasing improvement for the MI-CBT group

over the follow-up period and either no change or a slight worsening over time for the CBT-alone group (Westra et al., 2016). See Table 1 for clients' pretreatment, posttreatment, and 12-month follow-up PSWQ scores.

The pseudonym "Deb" was given to the client who completed CBT-only treatment and the pseudonym "Martha" was given to the client who completed MI-CBT treatment to preserve confidentiality and anonymity. Deb was a 28-year-old Caucasian female with a postsecondary degree who had a comorbid diagnosis of major depression, panic disorder, and social phobia at baseline. Martha was a 53-year-old Caucasian female with a master's degree who had no other comorbid conditions at baseline. Both Deb and Martha had had previous experience with psychotherapy treatment (Deb: 17 CBT sessions with a psychologist; Martha: 10 therapy sessions with a social worker).

Therapists

Deb's therapist was a 28-year-old Caucasian female who was a master's-level trainee in supervised practicum training. Martha's therapist was a 32-year-old Caucasian female who had recently completed her PhD. Therapists in the RCT self-selected the training and delivery of the treatment condition to enhance their fidelity to the MI-CBT or CBT treatment protocols. Training consisted of readings, 4-day-long workshops including discussion and role-play, and at least one practice case with intensive feedback and video review of therapy sessions.

Treatment

The CBT-only client (Deb) received 15 weekly sessions of CBT, which included the following components: psychoeducation for

Table 1
Client PSWQ Scores at Pretreatment, Posttreatment, and 12 Months Follow-Up

Client	Pretreatment	Posttreatment	12 months follow-up
Deb (CBT)	80	51	75
Martha (MI-CBT)	68	32	20

Note. PSWQ = Penn State Worry Questionnaire; CBT = cognitive behavioral therapy; MI-CBT = Motivational Interviewing integrated with CBT.

anxiety and worry, self-monitoring, progressive muscle relaxation training, discrimination training, cognitive restructuring, behavioral experiments, imagined and in vivo exposure to worry cues, prevention of worry-related behaviors, discussion of sleep strategies, and relapse prevention planning.

The MI–CBT client (Martha) received four sessions of MI followed by 11 sessions of CBT, integrated with MI techniques when markers of ambivalence and resistance emerged. The MI treatment consisted of principles and methods outlined by Miller and Rollnick (2002), targeting ambivalence about worry and worry-related behaviors. Core strategies and principles of MI (expressing empathy, rolling with resistance, developing discrepancy, and enhancing self-efficacy) are differentiated from the underlying MI spirit. The MI spirit is a client-centered relational stance involving empathic attunement, collaboration, evocation, and respect for the client's autonomy (Angus, Watson, Elliott, Schneider, & Timulak, 2015). CBT therapists actively take on the role of change advocate, whereas MI therapists facilitate the client to explore their own thoughts and feelings about change, helping the client become a more effective advocate for his or her own change. Although MI has several directive components aimed at increasing client self-change talk, the focus remains on increasing motivation for change instead of primarily employing change strategies.

Measures

PSWQ (Meyer et al., 1990). The PSWQ is a widely used measure in assessing trait worry. The 16 items on the PSWQ are rated on a 5-point Likert scale, with higher scores indicating higher levels of worry. The PSWQ has been found to hold high internal consistency, have good test–retest reliability, and have good convergent and discriminant validity (Brown, Antony, & Barlow, 1992).

PPCEIT (Constantino et al., 2011). Clients were interviewed at therapy termination using the PPCEIT interview protocol, which contains 10 open-ended questions that are divided into four sections. The interview protocol is outlined in an interview manual (Constantino, Angus, & Moertl, 2012). The first section asks clients to identify the primary reasons they

sought out therapy. The second and third sections invite clients to share their experiences of what shifted in therapy and how these meaningful shifts came about, respectively. The fourth and final section of the PPCEIT interview protocol inquires about any other meaningful experiences in therapy and the client's experience of participating in the interview.

Procedure

Data analysis. Interviews were audiorecorded, transcribed, and analyzed using ATLAS.ti (Muhr, 1997) scientific software that is designed to implement a grounded theory analysis (Angus & Rennie, 1988, 1989; Glaser & Strauss, 1967).

Grounded theory. The grounded theory approach is a “qualitative research method that uses a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon” (Strauss & Corbin, 1990, p. 24). Glaser and Strauss (1967) originally developed this approach as an alternative to deductive theorizing methods in which data are forced to fit into existing theories. The grounded theory method used in the current study is based on an integration of grounded theory methods outlined by Angus and Rennie (1988, 1989) and Glaser and Strauss (1967).

The interview transcripts were first divided into meaning units, which are text segments (usually a few lines to a paragraph) that convey a single topic or focus. The next step involves identifying properties in each meaning unit. The term *properties* refers to individual and new ideas conveyed by the client within a larger meaning unit. Property titles were kept descriptive and close to the client's language. As the analysis progressed, new meaning units were compared to existing properties. If no existing properties were representative of an individual idea within a meaning unit, a new property was developed. Properties were further clustered into categories, the titles of which shifted from being entirely descriptive when identifying properties to conceptual, abstract themes when labeling categories in order to explain the properties' descriptive content. Categories with relationships to multiple other categories were termed *central* or *core* categories (Angus & Rennie, 1988, 1989). The linked categories were then organized into a hierarchical structure

in which core categories subsumed lower order categories, defining the core category properties. In the present study, the transcripts were coded into meaning units and properties and clustered into categories by a single coder. A senior researcher and clinical psychologist verified the meaning units and properties against the raw language used by the client and audited the properties as well as their categorization into lower order categories and core categories.

Results

Tables 2 and 3 present the core themes and subcategories that emerged from the qualitative analysis of Deb and Martha's posttreatment accounts of their therapy experiences. The emergent core themes were grouped in terms of two domains—(a) client-identified shifts in therapy and (b) clients accounting how shifts occurred in therapy—to address Research Questions a and b, respectively.

Domain 1: Client-Identified Shifts in Therapy

Core Category 1: More adaptive interpersonal relationships due to therapy. This core category includes Deb and Martha's de-

Table 2
Taxonomy of Categories for the Domain of Client-Identified Shifts in Therapy

Category
Core Category 1: More adaptive interpersonal relationships due to therapy
(a) Experiencing old interpersonal patterns with a new outcome in the therapeutic relationship
(b) Increased independence in interpersonal relationships
Core Category 2: Positive shifts in the experience of anxiety
(a) New awareness about the nature of anxiety: From feeling stuck in a box to expanded perspectives
(b) Change in anxiety-related behaviors that are observable in everyday life: Feeling more calm and present centered
Core Category 3: Feeling a sense of hopefulness about changes accomplished in therapy
(a) Feeling confident in sustaining progress accomplished in therapy through reliance on inner self-efficacy
(b) Feeling confident in sustaining progress accomplished in therapy by learning and applying CBT tools

Note. CBT = cognitive behavioral therapy.

Table 3
Taxonomy of Properties for the Domain of Clients Accounting How Shifts Occurred in Therapy

Category
Core Category 4: Therapist's positive role in facilitating shifts in therapy
(a) Therapist as an expert and guide in therapy
(a1) Therapist provides helpful information and resources
(a2) Therapist helped facilitate new perspectives on anxious thoughts and self-reflection for the client
(b) Positive therapeutic relationship enhanced therapy experience
Core Category 5: New intrapersonal and interpersonal awareness derived from therapy
(a) Insight into previously unacknowledged thoughts and emotions in therapy
(b) Self-realization to give priority to one's own needs before others: Shift from other focused to self focused
Core Category 6: Learning helpful CBT exercises and tools to manage anxiety on an everyday basis
(a) Muscle relaxation exercises useful in recognizing bodily tension
(b) Thought records helpful due to their practical value in organizing anxious thoughts in stressful situations

Note. CBT = cognitive behavioral therapy.

scriptions of experiencing maladaptive interpersonal patterns with a new outcome within the therapeutic relationship as well as examples of improved interpersonal relationships outside the context of therapy.

(a) Experiencing old interpersonal patterns with a new outcome in the therapeutic relationship. Martha reported replaying her maladaptive interpersonal pattern of wanting to be perceived perfectly in the therapeutic relationship:

I slowly started to realize that I like to be perfect, I like to be friendly. So I was trying to be the perfect client, what if she (therapist) thinks I am crappy at this or that I am terrible?

After a discussion with her therapist, Martha reported that she came to understand this interpersonal pattern in a new way and apply this awareness within the therapeutic relationship and to relationships outside the therapeutic context:

I was trying to be perfect. I was trying to measure up to what I thought everyone else thought I should be. Now, it's okay to be who I am and do what I am doing . . . I am not so concerned about if they . . . are thinking

critically about me. . . . At Christmastime, I wanted to bake some cookies and bring them to her [therapist]. But I didn't because I didn't think it was totally necessary, which is a good thing.

Deb also reported becoming more aware of her interpersonal pattern of "worrying about the therapist being upset about something" and "apologizing too much" after the therapist pointed it out to her. After discussing this interpersonal pattern with the therapist, Deb noted the following: "There are situations now where I will be doing something, I think to myself, do I need to apologize for that? I try and like, go back to therapy."

(b) Increased independence in interpersonal relationships. This subcategory contains clients' responses in which they reported experiencing more adaptive interpersonal relationships characterized by an enhanced sense of agency and independence. For example:

- "I am trying to get myself a little less dependent. So I think my husband is happier and together we are a little bit better" (Deb).
- "I have always been very overprotective of my brother. But I am trying to . . . let him deal with his own issues. I would never have thought of doing that before" (Deb).
- "My mom has Alzheimer's and my dad is taking care of her. . . . He was angry and I got the brunt of it. . . . I would worry about my dad. . . . What should I be doing? Now, I am doing what I can and I am not . . . looking for more to compensate" (Martha).

Core Category 2: Positive shifts in the experience of anxiety. This core category includes Deb and Martha's reports of positive shifts in how they view and experience anxiety, which they attributed to their engagement in CBT and MI-CBT, respectively.

(a) New awareness about the nature of anxiety: From feeling stuck in a box to expanded perspectives. Deb described a transition in viewing her anxiety from "being stuck in a box" with a limited perspective to deriving a new perspective about the nature of anxiety by equating it to "bringing a new light" to it. Both clients described a meaningful shift such that instead of viewing their worry as unmanageable and overwhelming, they came to see it as something they could learn to work with. For example:

- "Before starting therapy, my worry was like a train, so it was thought after thought after thought. But now, it is easier for me to break that up" (Deb).
- "The more we talked about what was that thought? Why did you think that way? I started seeing, oh okay, I can stop, look at it, slow it down, and try to reframe it" (Martha).

Although Deb reported realizing that she would "always have anxiety," she noted being able to view her anxious thoughts in a more objective manner now, similar to Martha, who also noted being able to view her anxiety from "another person's point of view."

(b) Change in anxiety-related behaviors that are observable in everyday life: Feeling more calm and present centered. Only Martha reported instances of taking action and changes in anxiety-related behaviors while noting a significant reduction in her anxiety. She noted:

I didn't like open time where there was nothing planned. I would get restless and feel like I should be productive. But now I am okay with downtime, like to spend a Sunday in my sweats, stay at home and watch movies, I never did that before. It feels good because I feel calmer. I am definitely less tired than I was.

She also noted: "My mind isn't racing as much. And I am sleeping better. I wake up in the morning and go, hmm, I don't feel tired. So that's nice! It's a surprise."

Core Category 3: Feeling a sense of hopefulness about changes accomplished in therapy. This core category includes clients' descriptions of deriving confidence from changes accomplished in therapy and growing optimism about the future.

(a) Feeling confident in sustaining progress accomplished in therapy through reliance on inner self-efficacy. This subcategory reflects Martha's responses; she reported increased confidence about the positive shifts she accomplished in therapy as well as taking responsibility in terms of creating and sustaining these shifts: "In the questionnaire that we fill out every session, that question of what percentage of your symptoms do you feel have improved, I would always say, 60% and then later on, I thought, maybe 80%." She also noted: "I was never skeptical that the therapy process was effective, it was more, could I do it? So more about myself than therapy itself." Although Martha described realistic concerns about keeping up with therapy progress, her responses

also indicated hopefulness and a belief in her own ability to continue moving forward:

I am a bit nervous because I have been dealing with it for 30 years. If I introduce more stress back, would I be able to keep it up? But I am thinking more and more that I can. I can think differently.

(b) Feeling confident in sustaining progress accomplished in therapy by learning and applying CBT tools. This subcategory contains Deb's responses; she described feeling equipped with various tools learned from therapy for application to outside situations: "At least I have all this information and tools that I can use when everything in my life returns to normal." She also noted: "Once life gets a little bit more back to normal, I can still do all this stuff that I have been doing in therapy." She also noted deriving confidence from applying CBT tools and observing the positive results: "Doing thought records, relaxation exercises, I have come into this brand-new profession with no experience and I am still there and they haven't fired me yet. So this is a good sign."

Domain 2: Clients Accounting How Shifts Occurred in Therapy

Core Category 4: Therapist's positive role in facilitating shifts in therapy. This core category includes Deb and Martha's descriptions of the positive role played by the therapist in facilitating shifts.

(a) Therapist as an expert and guide in therapy. The majority of the properties in this subcategory represented Deb's responses, which reflected the therapist actively guiding the therapy process and providing expertise.

(a1) Therapist provides helpful information and resources. All the properties in this subcategory came from Deb's responses in which she spoke about the therapist supplying her with resourceful information that provided her with clarity when "everything seemed cloudy." Her responses reflected the therapist being a knowledgeable guide who helped her overcome difficulties with therapy exercises: "Everything that she was asking me to do or ideas that she had, I agreed with everything she was suggesting because I felt like it was helpful."

(a2) Therapist helped facilitate new perspectives on anxious thoughts and self-reflection for the client. Martha spoke about the therapist "opening her mind" to new perspectives on her anxiety. Similarly, Deb noted:

The therapist asking me a lot of questions made me really think and gave me a chance to look at things from a different perspective. . . . She would come back with a question, which I would be like, whoa!, she stumped me. And I'd think wow, I never thought of it like that!

(b) Positive therapeutic relationship enhanced therapy experience. Both clients described the positive therapeutic relationship as providing them with a safe space to open up. During a particularly stressful week, Deb noted: "She said, today we are not going to have a schedule, I want you to talk about what you feel like you need to talk about. So she let me vent. I really needed it." Martha noted: "That was a surprise that I didn't expect to cry as much as I did." In addition, Deb reported that the therapist possessed a "very warm demeanor and personality," which helped increase her trust in the therapy process and relationship:

It felt like she truly cared. She wasn't just saying whatever because it's part of her job, it felt like a real sense of her personality came through, which is important because I didn't want to talk to a robot.

Core Category 5: New intrapersonal and interpersonal awareness derived from therapy. The majority of the properties in this core category represent Martha's responses in which she described how gaining awareness of her underlying beliefs and interpersonal patterns helped her accomplish meaningful shifts in therapy.

(a) Insight into previously unacknowledged thoughts and emotions in therapy. The properties in this subcategory emerged from Martha's account in which she spoke about realizing the extent to which she was "criticizing herself on the inside" and trying to "measure up to an unrealistic standard." She noted:

I always thought I should be able to do more, more, and more. It was never enough. Because of this, in the last 5 years, I realized that no matter what I did, I was exhausted. So mentally, I was burnt out.

She noted a specific incident in therapy when experiencing emotions acted as a cue to her underlying fears:

It was around the fourth session when the therapist started to get to me and I felt emotional. . . . It started with her asking me questions and then I felt like crying. . . . And then I started to realize some of my fears and how much they were part of me, like people

not liking me, getting old, and fat. I realized how much they mean to me.

(b) Self-realization to give priority to one's own needs before others: Shift from other focused to self focused. Both clients came to the realization that they were investing more into their interpersonal relationships instead of focusing on their own needs and priorities. For example, Deb stated: "I realized I was paying way too much attention to everyone else and not doing enough for myself. . . . I am realizing to step back and disconnect a little bit to keep myself sane." Martha **noted**:

I would go for a massage and then chat through the whole thing about their life and then I come to the end of the thing and go, that was not the point. . . . I notice now when other people do not ask about me. So it's a one-sided relationship. . . . So I realized, being nice and polite is good but not to go too far.

Core Category 6: Learning helpful CBT exercises and tools to manage anxiety on an everyday basis. This core category **emerged** from Deb's description of helpful CBT exercises and tools that she learned from therapy.

(a) Muscle relaxation exercises useful in recognizing bodily tension. Deb spoke about the helpful aspects of learning progressive muscle relaxation in therapy and incorporating it into her daily life. She mentioned now being able to identify tension in her body and being able to use it as a "sign to relax."

(b) Thought records helpful due to their practical value in organizing anxious thoughts in stressful situations. Deb **noted** that the thought records were her "favorite part" of therapy in terms of their value in helping her "break down and analyze" her worries in everyday situations. She also spoke about utilizing the thought records during and after therapy, which helped her "recognize the underlying cause of negative thoughts."

Discussion

This pilot study utilized a grounded theory analysis to identify core themes in clients' post-therapy **accounts** of **shifts** experienced in CBT or MI-CBT for GAD. Our goal was to identify core themes about what **shifted** and how it **shifted** and to identify whether any of those **shifts** might constitute a CE (i.e., a new understanding or unexpected, novel emotional experience of an event, the self, or a relationship;

Castonguay & Hill, 2012). Two recovered clients were **solicited** from an RCT of CBT versus MI-CBT (Westra et al., 2016) and interviewed at posttreatment using the PCEIT interview protocol (Constantino et al., 2011). The small sample size limits generalization, and systematic differences in age, education level, and comorbid diagnoses at baseline between the CBT and MI-CBT clients, as well as therapist differences, may have partially **accounted** for the findings. However, our findings are promising in terms of implications for future research with a larger sample and for clinical practice.

The **emergent** core themes and subcategories in the domain of client-identified **shifts** in therapy **indicated** that Martha and Deb reported several meaningful **shifts** in their therapy process, a few of which were congruent with the following pantheoretical, transdiagnostic definition of CEs: "ones in which a person comes to understand or experience affectively an event or a relationship in a different or unexpected way" (Castonguay & Hill, 2012, p. 5).

Specifically, the two subcategories in the core theme of more adaptive interpersonal relationships due to therapy are consistent with the conceptualization of CEs (Castonguay & Hill, 2012). The subcategory of experiencing old interpersonal patterns with a new **outcome** in the therapeutic relationship highlighted that both clients identified a meaningful interpersonal **shift** or CE within the therapeutic relationship, which is in agreement with the transtheoretical definition (Castonguay & Hill, 2012) and original conceptualization of CEs (Alexander & French, 1946). Both clients came to replay as well as understand and experience their old maladaptive interpersonal pattern with a new solution within the context of the therapeutic relationship. In both instances, instead of reaffirming their interpersonal pattern as others had done before, the therapist facilitated a new corrective interpersonal experience through an open discussion within the context of warmth, genuineness, and safety of the therapeutic space. The subcategory of increased independence in interpersonal relationships included Deb and Martha's examples of specific **shifts** in the way they experienced interpersonal relationships with significant others outside the context of the therapeutic relationship due to therapy, which is also consistent with Castonguay and Hill's (2012) conceptualization of CEs.

The core theme of positive shifts in the experience of anxiety highlighted that both clients indicated cognitive and experiential shifts in relation to their anxiety and worry. Although these responses were evoked in response to questions that pull for significant and personally meaningful shifts within therapy in the PPCEIT interview protocol (Constantino et al., 2011), these shifts do not meet the definition of CEs (Castonguay & Hill, 2012).

In the core theme of feeling a sense of hopefulness about changes accomplished in therapy, both clients noted a shift from feeling hopeless about the future to enhanced optimism in maintaining changes accomplished in therapy. While this core theme is representative of a positive outcome of the clients' therapeutic experiences, the subcategories within the theme do not comply with the pantheoretical definition of CEs (Castonguay & Hill, 2012). What is notable here is that while there were many commonalities in Deb and Martha's accounts of increased hopefulness, differences were apparent in their perceptions of what their roles were in maintaining shifts from therapy. Martha expressed confidence about maintaining changes through a belief in her own inner resources, whereas Deb expressed similar optimism but through the application of CBT tools learned from therapy. This difference was also paralleled in their descriptions of how they perceived CEs to have occurred. The bulk of Deb's responses fell under the core themes of therapist's positive role in facilitating shifts in therapy and learning helpful CBT exercises and tools to manage anxiety on an everyday basis. Salient in Deb's responses was a sense that she experienced the therapist as the expert and guide who acted as the primary manager of the therapy sessions (e.g., agreeing with the therapist's suggestions, complying with homework and exercises). Deb also attributed her shifts in therapy to thought records and muscle relaxation.

In contrast, Martha's descriptions of attributions for shifts mainly fell under the core theme of new intrapersonal and interpersonal awareness derived from therapy. In Martha's accounts of how CEs occurred, she noted working hard at gaining a deeper understanding of herself and finding her own answers. This difference may reflect key elements of the MI spirit, which emphasizes the view that resources and motiva-

tion for change reside within the client (Miller & Rollnick, 2002).

The aforementioned findings are also consistent with the theoretical rationale for integrating MI with more directive therapeutic approaches such as CBT to increase clients' active engagement and motivation for change in treatment (Miller & Rollnick, 2002). Specifically, CBT requires that the client engage in several tasks and exercises with a clear orientation toward changing one's thinking and behaviors, which can be a potent breeding ground for resistance (Westra, 2012). MI is then added to mobilize the client's intrinsic motivation for movement toward change, which is thought to inherently increase engagement in treatment. Increased treatment engagement as a function of receiving MI was observable in Martha's accounts of how shifts occurred; she attributed them to the awareness and insights derived by her agentic self, whereas Deb attributed her CEs to the therapist's guidance and CBT tools, which is congruent with the didactic nature of CBT.

In addition to enhanced engagement in treatment, Martha's (MI-CBT) PSWQ scores indicated an enhanced treatment outcome compared to Deb (CBT only) at 12 months follow-up—that is, although both clients were considered to have recovered from GAD at posttreatment, Martha retained her treatment status of recovered at 12 months follow-up, while Deb relapsed at 12 months follow-up. If these two cases are representative of the treatment conditions from which they were sampled, then these findings indicate that MI integrated with CBT might improve treatment outcomes through the pathway of the MI spirit and client-as-expert nature, which engenders clients with an agency and trust in themselves, as observed in Martha's posttreatment. In contrast, Deb's account suggested her dependence on therapist guidance. This distinction might be particularly relevant once treatment ends and clients have to rely on themselves. In addition to capturing the nature and attributions of meaningful shifts from the clients' perspectives, the results of the present study also provide preliminary evidence that CEs are experienced by clients undergoing MI and CBT for GAD. Finally, our findings tentatively suggest that the theoretically intended mechanisms of change in MI and CBT are consistent with clients' subsequent accounts of shifts experienced in therapy, and these may

point to pathways through which MI may exert better long-term benefits than CBT alone.

Limitations and Future Directions

An important limitation of this pilot study was the small sample size. It should also be noted that differences in age, education, comorbid diagnoses at baseline, and therapist differences between the CBT-only client and MI-CBT client could have contributed to systematic differences in long-term outcome as well as the clients' understanding and reporting of their therapy experiences.

In future studies, it will be important to explore if key differences in agency and self-efficacy, as noted in the MI-CBT client's descriptions of meaningful shifts, also arise in a larger sample of clients engaging in CBT and MI-CBT for GAD, which may add to the growing understanding of how MI may increase receptivity to more action-oriented treatments such as CBT. It would also be informative to examine how verbal accounts compare between psychotherapy clients who achieve recovery versus those clients who do not achieve recovery in order to further elucidate how differences in clients' understanding and attributions for their CEs and shifts may contribute to their therapy outcome status at posttreatment and follow-up. Overall, a growing understanding of CEs and meaningful shifts holds the potential of providing therapists with knowledge of how to create favorable conditions to facilitate such shifts for clients in therapy. Most importantly, the present study adds to the understanding of clients' experiences of personally significant shifts in psychotherapy that ultimately belong to the clients and are worthy of studying in their own right.

References

- Alexander, F., & French, T. M. (1946). *Psychoanalytic therapy: Principles and application*. New York, NY: Ronald Press.
- Angus, L., & Rennie, D. L. (1988). Therapist participation in metaphor generation: Collaborative and noncollaborative styles. *Psychotherapy: Theory, Research, Practice, Training*, 25, 552–560. <http://dx.doi.org/10.1037/h0085381>
- Angus, L., & Rennie, D. (1989). Envisioning the representational world: The client's experience of metaphoric expression in psychotherapy. *Psychotherapy: Theory, Research, Practice, Training*, 26, 372–379. <http://dx.doi.org/10.1037/h0085448>
- Angus, L., Watson, J. C., Elliott, R., Schneider, K., & Timulak, L. (2015). Humanistic psychotherapy research 1990–2015: From methodological innovation to evidence-supported treatment outcomes and beyond. *Psychotherapy Research*, 25, 330–347. <http://dx.doi.org/10.1080/10503307.2014.989290>
- Brown, T. A., Antony, M. M., & Barlow, D. H. (1992). Psychometric properties of the Penn State Worry Questionnaire in a clinical anxiety disorders sample. *Behaviour Research and Therapy*, 30, 33–37. [http://dx.doi.org/10.1016/0005-7967\(92\)90093-V](http://dx.doi.org/10.1016/0005-7967(92)90093-V)
- Castonguay, L. G., & Hill, C. E. (Eds.). (2012). *Transformation in psychotherapy: Corrective experiences across cognitive behavioral, humanistic, and psychodynamic approaches*. Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/13747-000>
- Constantino, M. J., Angus, L., Friedlander, M. L., Messer, S. B., & Heatherington, L. (2011). *Patients' perceptions of corrective experiences in individual therapy interview protocol*. Unpublished interview protocol, University of Massachusetts at Amherst, Massachusetts.
- Constantino, M. J., Angus, L., & Moertl, K. (2012). *Patients' perceptions of corrective experiences in individual therapy manual*. Unpublished manual, University of Massachusetts at Amherst, Massachusetts.
- Covin, R., Ouimet, A. J., Seeds, P. M., & Dozois, D. J. A. (2008). A meta-analysis of CBT for pathological worry among clients with GAD. *Journal of Anxiety Disorders*, 22, 108–116. <http://dx.doi.org/10.1016/j.janxdis.2007.01.002>
- Elliott, R., Slatick, E., & Urman, M. (2001). Qualitative change process research on psychotherapy: Alternative strategies. In J. Frommer & D. L. Rennie (Eds.), *Qualitative psychotherapy research: Methods and methodology* (pp. 69–111). Lenggerich, Germany: Pabst Science.
- First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (2002). *Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Research Version, Patient Edition (SCID-I/P)*. New York, NY: Biometrics Research, New York State Psychiatric Institute.
- Friedlander, M. L., Sutherland, O., Sandler, S., Kortz, L., Bernardi, S., Lee, H. H., & Drozd, A. (2012). Exploring corrective experiences in a successful case of short-term dynamic psychotherapy. *Psychotherapy*, 49, 349–363. <http://dx.doi.org/10.1037/a0023447>
- Glaser, B. G., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.

- Hardtke, K., & Angus, L. (2004). The narrative assessment interview: Assessing self-change in psychotherapy. In L. Angus & J. McLeod (Eds.), *The handbook of narrative and psychotherapy: Practice, theory and research* (pp. 247–262). Thousand Oaks, CA: Sage. <http://dx.doi.org/10.4135/9781412973496.d19>
- Heatherington, L., Constantino, M. J., Friedlander, M. L., Angus, L., & Messer, S. B. (2012). Corrective experiences from clients' perspectives. In L. Castonguay & C. E. Hill (Eds.), *Transformation in psychotherapy: Corrective experiences across cognitive behavioral, humanistic, and psychodynamic approaches* (pp. 161–190). Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/13747-010>
- Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology, 59*, 12–19. <http://dx.doi.org/10.1037/0022-006X.59.1.12>
- Kertes, A., Westra, H. A., Angus, L., & Marcus, M. (2011). The impact of motivational interviewing on client experiences of cognitive behavioral therapy for generalized anxiety disorder. *Cognitive and Behavioral Practice, 18*, 55–69. <http://dx.doi.org/10.1016/j.cbpra.2009.06.005>
- Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990). Development and validation of the Penn State Worry Questionnaire. *Behaviour Research and Therapy, 28*, 487–495. [http://dx.doi.org/10.1016/0005-7967\(90\)90135-6](http://dx.doi.org/10.1016/0005-7967(90)90135-6)
- Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change*. New York, NY: Guilford Press.
- Muhr, T. (1997). ATLAS.ti (Version 7) [Computer software]. Berlin, Germany: Scientific Software Development.
- Palvarini, P. (2010). Is the concept of corrective emotional experience still topical? *American Journal of Psychotherapy, 64*, 171–194.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Westen, D., & Morrison, K. (2001). A multidimensional meta-analysis of treatments for depression, panic, and generalized anxiety disorder: An empirical examination of the status of empirically supported therapies. *Journal of Consulting and Clinical Psychology, 69*, 875–899. <http://dx.doi.org/10.1037/0022-006X.69.6.875>
- Westra, H. A. (2012). *Motivational interviewing in the treatment of anxiety*. New York, NY: Guilford Press.
- Westra, H. A., Constantino, M. J., & Antony, M. M. (2016). Integrating motivational interviewing with cognitive-behavioral therapy for severe generalized anxiety disorder: An allegiance-controlled randomized clinical trial. *Journal of Consulting and Clinical Psychology*. Advance online publication. <http://dx.doi.org/10.1037/ccp0000098>

Received May 23, 2015

Revision received May 26, 2016

Accepted June 17, 2016 ■

presented by:



English Community-English Studio
Faculty of Psychology
Universitas Gadjah Mada