Self-Concealment Mediates the Relationship Between Perfectionism and Attitudes Toward Seeking Psychological Help Among Adolescents

Psychological Reports 0(0) 1–18 © The Author(s) 2017 Reprints and permissions: sagepub.com/journalsPermissions.nav DOI: 10.1177/0033294117713495 journals.sagepub.com/home/prx



Abbas Abdollahi and Simin Hosseinian

Department of Counseling, Faculty of Education and Psychology, Alzahra University, Tehran, Iran

Ahmad Beh-Pajooh

Faculty of Psychology & Education, University of Tehran, Iran

Per Carlbring

Department of Psychology, Stockholm University, Sweden

Abstract

One of the biggest barriers in treating adolescents with mental health problems is their refusing to seek psychological help. This study was designed to examine the relationships between two forms of perfectionism, self-concealment and attitudes toward seeking psychological help and to test the mediating role of self-concealment in the relationship between perfectionism and attitudes toward seeking psychological help among Malaysian high school students. The participants were 475 Malaysian high school students from four high schools in Kuala Lumpur, Malaysia. Structural equation modelling results indicated that high school students with high levels of socially prescribed perfectionism, high levels of self-concealment, and low levels of self-oriented perfectionism reported negative attitudes toward seeking psychological help. Bootstrapping analysis showed that self-concealment emerged as a significant, full mediator in the link between socially prescribed perfectionism and attitudes toward seeking psychological help. Moderated mediation analysis also examined whether the results generalized across men and women. The results revealed that male students with socially prescribed perfectionism are more likely to engage in self-concealment, which in turn, leads to negative attitudes toward seeking psychological help more than their female counterparts. The results suggested that students

Corresponding Author:

Abbas Abdollahi, Department of Counseling, Faculty of Education and Psychology, Alzahra University, Tehran, Iran.

Email: abdollahi.abbas58@gmail.com

high in socially prescribed perfectionism were more likely to engage in selfconcealment and be less inclined to seek psychological help.

Keywords

Perfectionism, self-concealment, seeking psychological help, adolescents

Introduction

Many adolescents experience psychological problems such as anxiety, depression, and suicidal ideation that impact their mental health (Abdollahi & Talib, 2015; Abdollahi, Talib, Reza Vakili Mobarakeh, Momtaz, & Kavian Mobarake, 2015; Abdollahi, Talib, Yaacob, & Ismail, 2015). However, adolescents typically seem hesitant to seek psychological help from professional mental health services to treat their mental health problems (Zeifman et al., 2015). Although availability and accessibility to mental health organizations are important, attitude toward seeking psychological help plays a role in mental health among adolescents with psychological problems. Attitude toward psychological help seeking is defined as an attitude by an adolescent to enlist help in solving emotional and behavioral problems (Strunk, Sorter, Ossege, & King, 2014). If adolescents with psychological problems do not seek psychological help and their psychological problems are untreated (Masuda & Boone, 2011), they may have difficulty fulfilling the personal and social roles necessary to develop and flourish in the different systems in society. Therefore, the aim of this study is to investigate the psychological barriers to seeking psychological help among Malaysian adolescents.

One of the reasons that adolescents are reluctant to seek psychological help concerns public stigma (Zeifman et al., 2015). Prior research has identified factors that contribute to the stigma of mental health disorders, such as the perception of untreatable mental illness, the perceived dangerousness of mental health patients, and lack of responsibility given to mental health patients (Corrigan et al., 2005; Feldman & Crandall, 2007). Due to these negative suppositions and prejudice about mental illness by society (such as "mental health patients are dangerous and unreliable), individuals with mental health issues may be reluctant to seek psychological help. Existing literature shows that perfectionistic adolescents are more likely to experience self-stigma and are more likely to have negative attitudes toward seeking psychological help from mental health professionals (Zeifman et al., 2015). One possible explanation is that perfectionists are more likely to be worried that their mental health problems lead others to think badly of them (Kawamura & Frost, 2004). Consequently, perfectionists may be more likely to avoid seeking psychological help in treating mental health disorders and have a stronger urge to conceal mental health disorders (Williams & Cropley, 2014). These concerns would also negatively influence their attitudes toward seeking psychological help.

Perfectionism is defined as a tendency to set an extremely unachievable high standard, estimating only successes and the attainment of all goals set (Flett, Coulter, Hewitt, & Nepon, 2011). More specifically, scholars have distinguished between socially prescribed perfectionism and self-oriented perfectionism (Hewitt & Flett, 1991; Stoeber & Otto, 2006). Socially prescribed perfectionism is when someone perceives others as holding excessively high standards for himself or herself and believes that acceptance by others is conditional on fulfilling these standards. In contrast, self-oriented perfectionism is when someone sets excessively high standards for himself or herself and has a "perfectionist motivation" (Hewitt, Flett, Turnbull-Donovan, & Mikail, 1991).

Previous studies have suggested that socially prescribed perfectionism in adolescents is accompanied by a wide range of unfavorable outcomes. For example, socially prescribed perfectionists often experience distress that may contribute to many mental health disorders (Zeifman et al., 2015), including eating disorders (Sherry et al., 2014), depression (Moroz & Dunkley, 2015; Sherry, Sherry, Hewitt, Mushquash, & Flett, 2015), test anxiety (Abdollahi & Talib, 2015), and suicide (Hewitt, Caelian, Chen, & Flett, 2014). Socially prescribed perfectionism not only co-occurs with these issues but also has been presumed to be a maintaining factor for these mental health problems (Hewitt et al., 2014). In contrast, self-oriented perfectionists often experience flourishing (Stoeber & Corr, 2016), life satisfaction (Damian, Stoeber, Negru, & Băban, 2014), and intrinsic motivation for studying (Stoeber, Feast, & Hayward, 2009).

Previous research on this topic has looked at the direct relationship between two forms of perfectionism and attitudes toward seeking psychological help (Zeifman et al., 2015) but has not yet examined the possible mediating influence of self-concealment. Self-concealment is defined as uncomfortable and embarrassing feelings, thoughts, and personal information people have about themselves that they conceal from others (Hartman et al., 2015). A relevant explanatory mechanism for the relationship between perfectionism and attitudes toward seeking psychological help can be derived from research postulating that perfectionists experienced shame about the social stigma, and feared asking for psychological help (Zeifman et al., 2015). In addition, perfectionists would like to be evaluated as people with a high level of control over their emotions and appear flawless (Kawamura & Frost, 2004). As a result, they downplay their psychological problems, and they are unwilling to inquire about seeking psychological help and hesitant to disclose the content of their thoughts (Wheaton, Sternberg, McFarlane, & Sarda, 2016). A recent study revealed that individuals with high levels of self-concealment were more likely to avoid seeking psychological help (Wheaton et al., 2016). The precise mechanism that accounts for perfectionism and attitudes toward seeking psychological help remains to be delineated. In the light of this knowledge gap, this study tried to explicate the mediating influence of self-concealment on the relationship between two forms of perfectionism and attitudes toward seeking psychological help among adolescents. The findings

from this study will contribute to improving the psychological help seeking literature, and these findings may inform prevention and intervention programs to encourage adolescents with mental illnesses to seek psychological help.

The association between the two forms of perfectionism and attitudes toward seeking psychological help is not limited to the proposed mediational model. It is plausible that such a mediational model could be moderated by gender. Gender differences in attitudes toward seeking psychological help have been recorded in the literature (Baxter, Salmon, Dufresne, Carasco-Lee, & Matheson, 2016; Nam et al., 2010). For example, many studies have shown that females have more positive attitudes toward seeking psychological help; whereas, males are less likely to express an interest in help seeking (Kuo, Kwantes, Towson, & Nanson, 2007; Türküm, 2005). Thus far, no study has examined the moderating role of gender on the proposed mediational model. Thus, the moderated mediation analysis for gender differences is exploratory given the lack of a clear trend in the existing literature. Knowledge of the moderating role of gender differences in the proposed mediational model may contribute to the development of appropriate prevention and intervention programs that are sensitive to gender differences.

Study hypotheses

Building upon past studies (Williams & Cropley, 2014; Zeifman et al., 2015), we hypothesized self-concealment would mediate the relationship between the two forms of perfectionism and attitude towards seeking psychological help. Given the exploratory nature of the structural model, the predicted moderating role of gender was not straightforward. Thus, the following specific research question was posited: Do the structural paths in the hypothesized model change within subgroups defined by gender?

Methods

Participants

A total of 475 (243 males and 232 females) Malaysian high school students from four high schools located in Kuala Lumpur volunteered to participate in this study. Among the total participants, there were 125 freshman (27%), 120 sophomores (25%), 116 juniors (24%), and 114 seniors (24). The age of participants ranges from 15 to 21 years old, with a mean age of 17.29 ± 3.18 .

Procedure

After obtaining permission from the Malaysian Ministry of Education, the researchers coordinated with the head managers of four high schools to distribute the questionnaires. The data collection occurred from January 2015 until

March 2015. Two weeks before the data collection, parental consent letters were sent home with the students to be signed by their parents. After receiving the parental consent form, students were asked to complete the questionnaires. Researchers informed respondents that participation in this study was entirely voluntary, and they could withdraw or refuse to participate in the research study at any time. Of the 610 parental consent letters distributed to students, 495 parental consent forms were returned. On the day of the survey administration, 495 questionnaires were distributed to students in one session during a regularly scheduled class period. However, only 475 questionnaires were returned.

Questionnaire translation and pilot study

Since the respondents of this study were Malaysian students, the instruments were translated from English to Malay using Brislin's method (1980). The aim of the translation was to achieve fluency and consistency of the meaning. An experienced translator was asked to translate the English version into Malay, and another translator was asked to retranslate the Malay version into English. Finally, three experts were asked to review the English version, the Malay version, and the back-translated version in order to ensure that the concepts and the meaning of the items remained unchanged.

The questionnaires were pilot-tested using 45 Malaysian high school students in a single school to estimate their reliability. The questionnaires were internally consistent, indicating adequate reliability as follows: (a) self-oriented perfectionism with α : .79, (b) socially prescribed perfectionism with α : .74, (c) self-stigma of seeking psychological help with α : .81, and (d) the self-concealment scale with α : .82. The respondents gave positive feedback regarding their ability to clearly understand the instruments.

In this study, average variance extracted (AVE) and construct reliability (CR) were used to evaluate convergent validity and CR. Convergent validity occurs when all of the factors are statistically significant in the measurement model and are verified by an AVE equal to or greater than 0.50 (Hair, Black, Babin, Anderson, & Tatham, 2006). To obtain satisfactory CR, the value of the CR should be equal to or larger than 0.70 (Hair et al., 2006). Results are presented with each scale later.

Measures

Children and Adolescent Perfectionism Scale. The Children and Adolescent Perfectionism Scale (Flett, Hewitt, Boucher, Davidson, & Munro, 1997) is a 22-item instrument that was used to measure perfectionism via a 5-point type scale ranging from 1 (*not at all true of me*) to 5 (*very true of me*). This instrument consists of two subscales assessing self-oriented perfectionism (i.e., the standards subscale measures high personal standards for performance and achievement

with 12 items, such as "*I get upset if there is even one mistake in my work.*") and socially prescribed perfectionism (i.e., the extent to which individuals feel that others have high expectations of them with ten items, such as "*I feel that people ask too much of me.*" "*Other people always expect me to be perfect.*"). The total possible score for self-oriented perfectionism ranges from 12 to 60, and the total possible score for socially prescribed perfectionism ranges from 10 to 50. Higher scores correspond to higher levels of perfectionism. The Children and Adolescent Perfectionism Scale has been shown to yield reliable and valid scores with samples of American children (Hewitt et al., 2002). Based on the current sample, the AVE values for self-oriented perfectionism and socially prescribed perfectionism were 0.73 and 0.74, respectively, and the CR values for self-oriented perfectionism and socially prescribed perfectionism were 0.81 and 0.79.

Attitudes toward seeking professional psychological help. The attitudes toward seeking professional psychological help (Fischer & Farina, 1995) is a 10-item instrument that was used to measure students' attitudes toward seeking professional psychological help (e.g., "If I believed I was having a mental breakdown, my first inclination would be to get professional attention." or "The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts."). Each item was rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The total possible score ranges from 10 to 50, and higher scores correspond to positive attitudes toward psychological help. Fischer and Farina (1995) reported an acceptable alpha value for this measure. Based on the present sample, the AVE for the self-stigma of seeking psychological help was 0.71, and the CR for self-stigma of seeking psychological help was 0.78.

Self-Concealment Scale. The Self-Concealment Scale (SCS; Larson & Chastain, 1990) is comprised of 10 items that evaluate an individual's desire to conceal negative personal information on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The total possible score ranges 10 to 50, and higher scores reflect higher levels of self-concealment. Sample items included, "*When something bad happens to me, I tend to keep it to myself*," and "*I have an important secret that I haven't shared with anyone*." A previous study showed that the SCS has good internal consistency and reliability (Hartman et al., 2015). Based on the present sample, the AVE for SCS was 0.75, and the CR for SCS was 0.81.

Data analytic plan

Descriptive statistics and bivariate correlations were conducted with the help of Statistical Package for Social Sciences (SPSS) package version 20 (Arbuckle, 2006, IBM, SPSS). The bootstrapping method using the software Analysis of Moment Structure 20 (AMOS; Arbuckle, 2006, IBM, SPSS) was applied to test the mediation hypothesis (i.e., effect of two forms of perfectionism on seeking psychological help through self-concealment; Preacher & Hayes, 2008). Multigroup analysis was conducted to examine the moderated mediation model across gender.

Preliminary analysis

As an initial step, data assumptions, such as missing values, outliers, and normality distribution were checked to clean up the data and reduce systematic errors. The incomplete or missing data (ranging from 0.81% to 1.81% of items) were handled through mean replacement in SPSS software. Outliers were checked using Mahalabobis d-square/degrees of freedom values exceeding 3 or 4 in large samples (Byrne, 2010). The results showed that there are no potential outliers in the data set because there is no d-square/degree larger than 3 (Byrne, 2010). In the current study, the cut-off point values of ± 2 for Skewness and ± 7 for kurtosis were considered to check the normality of data set (Byrne, 2010). The results of the present study showed that all the values for Skewness and kurtosis fall within the suggested range of ± 2 for Skewness and ± 7 for kurtosis (Skewness values were from -0.77 to 1.21, and the kurtosis values were from -2.21 to 2.46 for all variables); therefore, the data were distributed normally.

Results

Descriptive statistics and bivariate correlations

Mean and standard deviation for the study variables are shown in Table 1. Also, Table 1 shows intercorrelations of study variables. All of the correlations were statistically significant. Attitudes toward seeking psychological help was positively correlated with self-oriented perfectionism (r = .351, p < .05) and was negatively correlated with socially prescribed perfectionism (r = -.394, p < .05) and self-concealment (r = -.477, p < .01).

Measurement model fit

Kline (2010) recommended using 4 to 5 indices to assess model fit. Based on Kline's recommendation, the following indices were used in this study: Chi Square/df, the comparative-fit index (CFI), the Tucker–Lewis index (TLI), the goodness-of-fit index (GFI), and the root mean squared error of approximation (RMSEA). The value of the RMSEA falls in recommending a range (RMSEA < 0.08), which supports the satisfactory level of model fit. In addition, if the values of CFI, TLI, and GFI indices are above .90 and Chi Square is less than 5, so the model fits adequately (Kline, 2010).

I	2	3	4
I			
−.381 **	I		
396 *	.368**	I	
.351*	394 *	477 **	I
42.20	29.13	25.13	.23.61
7.14	5.81	6.13	4.61
18–58	12-37	13-47	12-46
	396* .351* 42.20 7.14	I 381*** I 396* .368** .351*394* 42.20 29.13 7.14 5.81	I 381*** I 396* .368*** I .351*394*477** 42.20 29.13 25.13 7.14 5.81 6.13

Table 1. Means, Standard Deviations, and Bivariate Correlations.

**p < .01. *p < .05.

The measurement model included two forms of perfectionism, self-concealment, and attitudes toward seeking psychological help as latent variables. The outcome of examining the measurement model revealed that the model met the recommended requirements (CMIN=3874.11, DF=813, Chi square/ df=4.731, CFI=.937; TLI=914; GFI=.937, and RMSEA=.05; 90% confidence interval (CI)=[.05, .06]).

Structural model

The structure model was conducted to estimate structural path coefficients between the two forms of perfectionism and self-concealment, the independent variables, and attitudes toward seeking psychological help, the dependent variable. The overall results of the structure model showed that the model fit the data well (CMIN = 3974.31, DF = 828, Chi square/df = 4.799, CFI = 0.912, IFI = 0.913, GFI = 0.912, TLI = 0.928, and RMSEA = .05). As shown in Figure 1, the finding indicated that socially prescribed perfectionism (β = -.21, p < .01) and self-concealment (β = -.33, p < .01) were found to be negatively related to attitudes toward seeking psychological help; whereas, self-oriented perfectionism was positively related to attitudes toward seeking psychological help (β = .13, p < .05). The findings also revealed that there was a negative relationship between self-oriented perfectionism and socially prescribed perfectionism (β = -.38, p < .01). These variables explain 38% of the variance of attitudes toward seeking psychological help among Malaysian students.

Mediation test of self-concealment

The bootstrapping approach was used to examine whether the indirect effects of two forms of perfectionism on attitudes toward seeking psychological help

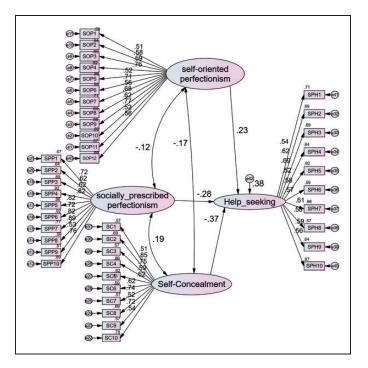


Figure 1. Structural model for the attitude toward seeking psychological help.

through self-concealment was statistically significant. To do this, the alpha level for the statistical significance of the indirect effect was set at .05 via a 95% biascorrected CI. Additionally, 5000 bootstrap samples were drawn with replacement from the full data set for each sample. If the CI includes zero, it suggests that the absence of a significant mediation effect at .05 level. In addition, if the pvalue for the relationship between exogenous variable (perfectionism) and exogenous variable (attitudes toward seeking psychological help) is not significant when the mediator is included, full mediation is established. However, if the p value for the relationship between exogenous variable (perfectionism) and exogenous variable (attitudes toward seeking psychological help) is significant and reduced when the mediator is included, partial mediation is established (Baron & Kenny, 1986).

The findings, as shown in Table 2, show that in the direct model, the links between self-oriented perfectionism ($\beta = .351$, p < .05) and socially prescribed perfectionism ($\beta = -.292$, p < .01) to attitudes toward seeking psychological help were significant. When including self-concealment in the full mediation model, the path coefficient from self-oriented perfectionism ($\beta = .192$, p < .05) to attitudes toward seeking psychological help was reduced, but still significant,

Effect		Bootstrap estimate		Bias corrected 95% Cl	
DV	IV	Estimate	SE	Lower	Upper
Direct model Seeking psychological help	Self-oriented perfectionism	.351**	.038	.275	.424
Seeking psychological help	Socially prescribed perfectionism	292 **	036	36I	218
Full mediation model Seeking psychological help	Self-oriented perfectionism	.1 92 *	.041	.116	.277
Seeking psychological help	Socially prescribed perfectionism	111	038	230	.106

Table 2. Testing Mediation of Self-Concealment.

Note: DV= Dependent Variable. IV= Independent Variable.

**p < .01. *p < .05.

and in this path, zero was not between the lower and upper bound of the CI. Therefore, self-concealment partially mediated the relationship between self-oriented perfectionism and attitudes toward seeking psychological help (mediation effect was .14 with 95% bias corrected bootstrapped CI [.06, .21], suggesting the mediation effect was strong). The partial mediation suggests that self-concealment plays dual roles, acting directly and indirectly on the relationship between self-oriented perfectionism and attitudes toward seeking psychological help. However, in the full mediation model, the path coefficient from socially prescribed perfectionism ($\beta = -.111$, p > .05) to attitudes toward seeking psychological help were reduced and not significant, and zero was between the lower and upper bounds of the CI (mediation effect was .23 with 95% bias corrected bootstrapped CI [.09, .31], suggesting the mediation effect was strong). Thus, self-concealment emerged as a full mediator in the link between socially prescribed perfectionism and attitudes toward seeking psychological help.

Moderated mediation analyses

Multigroup command in AMOS was employed to examine the comparability of the mediation model across gender. To do this, the sample was divided into subgroups of male students versus female students. When testing the moderating effect of gender, the unconstrained model (i.e., when all structural paths were allowed to vary) must be better than the measurement residual model (i.e., when

		Male		Female		
Construct	Construct	Estimate	Þ	Estimate	Þ	Z score
Self-oriented perfectionism	Self-concealment	18	.000	15	.000	.56
Self-oriented perfectionism	Seeking psychological help	.24	.000	.45	.000	2.76**
Self-oriented perfectionism	Socially prescribed perfectionism	26	.000	2I	.030	.61
Socially prescribed perfectionism	Self-concealment	.62	.000	.32	.000	2.12*
Socially prescribed perfectionism	Seeking psychological help	66	.000	—.49	.000	1.98*
Self-concealment	Seeking psychological help	52	.000	27	.000	1.45

Table 3. Moderating Role of Gender on the Hypothesized Paths.

*p < .05. **p < .01.

all structural paths were constrained to be equal) (Byrne, 2010). If the *p* value is less than .05, we can conclude the hypothesized model varied as a function of the gender moderation role. In addition, critical ratios of differences (CRD), calculated by dividing the difference between two estimates by an estimate of the standard error of the difference, were used to compare individual paths between the two groups. Values greater than ± 1.96 and ± 2.58 indicate statistical significant at .05 and .01 levels, respectively (Byrne, 2010).

The results as presented in Table 3 shows that the path from self-oriented perfectionism to attitudes toward seeking psychological help was identified as significantly different, CRD = -.2.76, p < .01. Female students ($\beta = .45$, p < .001) with high self-oriented perfectionism scores were more likely to have positive attitudes toward seeking psychological help than male students ($\beta = .24$, p < .001). Additionally, the path from socially prescribed perfectionism to self-concealment was also identified as significantly different, CRD = 2.12, p < .05. Male students ($\beta = .62$, p < .001) with high socially prescribed perfectionism to scores were more likely to conceal their feelings, thoughts, and information than female students ($\beta = .32$, p < .001). In addition, the path from socially prescribed perfectionism to attitudes toward seeking psychological help was also identified as significantly different, CRD = 1.98, p < .05. Male students ($\beta = .52$, p < .001) with high socially prescribed perfectionism scores were less likely to seek psychological help than female students ($\beta = .27$, p < .001) with high socially prescribed perfectionism scores were less likely to seek psychological help than female students ($\beta = -.27$, p < .001).

Discussion

The findings from the structural model support the first hypothesis by showing a negative relationship between socially prescribed perfectionism and attitudes toward seeking psychological help. Consistent with previous findings (Kawamura & Frost, 2004; Zeifman et al., 2015), this suggests that students with socially prescribed perfectionism do not have a propensity toward seeking psychological help. One probable explanation for the negative association between socially prescribed perfectionism and attitudes toward seeking psychological help is that socially prescribed perfectionism is closely associated with fear of negative evaluation by others, hypersensitive to criticism by others, feeling of embarrassment, rigidity of ideas, and inability to tolerate failure and imperfection (Stoeber, 2015; Users, 2010). These characteristics may increase shameful or humiliating experiences that are unbearable for them because such experiences do not fit with their principles of an idealized lifestyle. Therefore, it is conceivable that socially prescribed perfectionists are less likely to have positive attitudes toward seeking psychological help.

The findings also revealed that self-oriented perfectionism was positively associated with attitudes toward seeking psychological help. This finding is consistent with previous studies suggesting that self-oriented perfectionists are more likely to have positive attitudes toward seeking psychological help. A possible explanation for the positive association between self-oriented perfectionists and attitudes toward seeking psychological help is that self-oriented perfectionism is closely associated with positive future thinking, motivation to pursuit of success, and positive affect. These characteristics may increase their tendency to seek psychological help in order to pursuit success.

The findings from the mediation analysis support full mediation effect of selfconcealment between socially prescribed perfectionism and attitudes toward seeking psychological help. Socially prescribed perfectionism is closely associated with fear of negative evaluation by others, hypersensitive to criticism by others, feeling of embarrassment, rigidity of ideas, and inability to tolerate failure and imperfection (Stoeber, 2015; Users, 2010). These characteristics may lead perfectionists to experience shameful or humiliating events as unbearable because such experiences do not fit with their desired image of perfection. Consequently, socially prescribed perfectionism may make it more likely that students engage in self-concealment, which in turn, may lead them to avoid seeking psychological help (Kawamura & Frost, 2004). Identification of the full mediating role of self-concealment in the relationship between socially prescribed perfectionism and attitudes toward seeking psychological help provides an explanation for how socially prescribed perfectionism may influence seeking psychological help in students. This suggests that the propensity to conceal personal information is one of the characteristics of socially prescribed perfectionists, and they are not willing to share their personal issues with friends, relatives, family, and mental health professionals, even though the issues are common among their peers (Kawamura & Frost, 2004).

Self-concealment also partially mediated the relationship between selforiented perfectionism and attitudes toward seeking psychological help (Kawamura & Frost, 2004). The partial mediation suggests that selfconcealment plays a dual role, acting both directly and indirectly in seeking psychological help. In general, the findings further collaborate with perfectionism-acceptance theory's claim by illustrating empirically that perfectionism can be adaptive or maladaptive depending on whether it is accompanied by an inability to accept imperfection (Lundh, 2004). Self-concealment is one of the pathways through which perfectionism leads to lower likelihood to seek psychological help (Kawamura & Frost, 2004).

There is a significant gender difference in negative help-seeking orientation, with males far outnumbering females (Komiya, Good, & Sherrod, 2000). However, little is known about whether the proposed mediating model of attitudes toward seeking psychological help is generalizable to female students and to male students. Our results suggest that male students with socially prescribed perfectionism are more likely to engage in self-concealment, which in turn, leads to negative attitudes toward seeking psychological help more than their female counterparts. One possible explanation is related to the traditional male gender role (e.g., power/competition) and attitude towards seeking psychological help in the Malaysian culture. There is a belief that males' need for power might prevent them from seeking psychological help (Good, Dell, & Mintz, 1989). This may make it embarrassing for males to speak about their problems and seeking help, even with specialists. The findings also suggest that female students with greater self-oriented perfectionism are less likely to engage in self-concealment and to have positive attitudes toward seeking psychological help than male students. A plausible explanation for positive attitudes toward seeking psychological help in females is that they would like to speak about their problems when they feel stressed or unwell with formal or informal specialists consistent with gender norms (Bjerkeset, Romundstad, & Gunnell, 2008).

Implications

Our findings have important implications. Theoretically, the findings add to previous research by investigating the mediating role of self-concealment in the relationship between two forms of perfectionism and attitudes toward seeking psychological help, and testing the moderating role of gender in the mediating model. Methodologically, the moderated mediation analysis provides one step further toward a better understanding of the hypothesized model of attitudes toward seeking psychological help, in contrast to conventional linear regression.

Limitations

Although our findings are encouraging and compelling, several limitations should be considered. First, the nature of the cross-sectional design must be mentioned, so causal interpretations are not warranted. To rigorously define a causal prediction, longitudinal or experimental designs are needed. Second, since the data were obtained using self-report questionnaires, there is the probability that their answers were biased by social desirability. Future studies could employ a mixed-method approach and multiple sources to address such limitations. Third, the very specific population of Malaysian high school students was involved in this study, so our findings may not be generalizable to larger community samples. Future studies should examine whether our findings can be generalized to different populations and/or other educational levels.

Conclusion

Our study confirms that self-concealment plays a full mediation role in the relationship between socially prescribed perfectionism and attitudes toward seeking psychological help, and it plays a partial mediation role in the link between self-oriented perfectionism and attitudes toward seeking psychological help. These findings generalize across female and male students.

Acknowledgments

The authors would like to express our great appreciation to the participants for their support and assistance in data collection.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

- Abdollahi, A., & Talib, M. A. (2015). Emotional intelligence moderates perfectionism and test anxiety among Iranian students. *School Psychology International*, 5(3), 1–15. doi:10.1177/0143034315603445
- Abdollahi, A., Talib, M. A., Reza Vakili Mobarakeh, M., Momtaz, V., & Kavian Mobarake, R. (2015). Body-esteem mediates the relationship between self-esteem

and social anxiety: The moderating roles of weight and gender. *Child Care in Practice*, 1–13. doi:10.1080/13575279.2015.1054787

- Abdollahi, A., Talib, M. A., Yaacob, S. N., & Ismail, Z. (2015). Problem-solving skills and suicidal ideation among Malaysian college students: The mediating role of hopelessness. *Academic Psychiatry*, 43(2), 1–7. doi:10.1007/s40596-015-0383-0
- Arbuckle, J. L. (2006). Amos (version 20)[computer program]. Chicago, IL: IBM, SPSS.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173. doi:10.1037/0022-3514.51.6.1173
- Baxter, A., Salmon, C., Dufresne, K., Carasco-Lee, A., & Matheson, F. I. (2016). Gender differences in felt stigma and barriers to help-seeking for problem gambling. *Addictive Behaviors Reports*, 3, 1–8. doi:10.1016/j.abrep.2015.10.001
- Bjerkeset, O., Romundstad, P., & Gunnell, D. (2008). Gender differences in the association of mixed anxiety and depression with suicide. *The British Journal of Psychiatry*, 192(6), 474–475.
- Brislin, R. W. (1980). Translation and content analysis of oral and written material. Handbook of Cross-Cultural Psychology, 2(2), 389–444.
- Byrne, B. M. (2010). Structural equation modeling with AMOS: Basic concepts, applications, and programming (2nd ed., L. E. A. Publishers, Ed.). Abingdon, England: Routledge Academic. Retrieved from http://www.amazon.com/dp/0805863737
- Corrigan, P. W., Lurie, B. D., Goldman, H. H., Slopen, N., Medasani, K., & Phelan, S. (2005). How adolescents perceive the stigma of mental illness and alcohol abuse. *Psychiatric Services*, 56(5), 544–550.
- Damian, L. E., Stoeber, J., Negru, O., & Băban, A. (2014). Positive and negative affect in adolescents: An investigation of the 2× 2 model of perfectionism. *Cognition, Brain, Behavior, 18*, 1–16.
- Feldman, D. B., & Crandall, C. S. (2007). Dimensions of mental illness stigma: What about mental illness causes social rejection? *Journal of Social and Clinical Psychology*, 26(2), 137–154.
- Fischer, E. H., & Farina, A. (1995). Attitudes toward seeking professional psychologial help: A shortened form and considerations for research. *Journal of College Student Development*, 36(4), 368–373.
- Flett, G. L., Coulter, L.-M., Hewitt, P. L., & Nepon, T. (2011). Perfectionism, rumination, worry, and depressive symptoms in early adolescents. *Canadian Journal of School Psychology*, 26(3), 159–176.
- Flett, G. L., Hewitt, P. L., Boucher, D. J., Davidson, L. A., & Munro, Y. (1997). The child-adolescent perfectionism scale: Development, validation, and association with adjustment. Unpublished Manuscript.
- Good, G. E., Dell, D. M., & Mintz, L. B. (1989). Male role and gender role conflict: Relations to help seeking in men. *Journal of Counseling Psychology*, *36*(3), 295.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis: A global perspective* (Vol. 7). Upper Saddle River, NJ: Pearson. Retrieved from http://digitalcommons.kennesaw.edu/

- Hartman, J. D., Patock-Peckham, J. A., Corbin, W. R., Gates, J. R., Leeman, R. F., Luk, J. W., & King, K. M. (2015). Direct and indirect links between parenting styles, selfconcealment (secrets), impaired control over drinking and alcohol-related outcomes. *Addictive Behaviors*, 40(12), 102–108.
- Hewitt, P. L., Caelian, C. F., Chen, C., & Flett, G. L. (2014). Perfectionism, stress, daily hassles, hopelessness, and suicide potential in depressed psychiatric adolescents. *Journal of Psychopathology and Behavioral Assessment*, 36(4), 663–674.
- Hewitt, P. L., Caelian, C. F., Flett, G. L., Sherry, S. B., Collins, L., & Flynn, C. A. (2002). Perfectionism in children: Associations with depression, anxiety, and anger. *Personality and Individual Differences*, 32(6), 1049–1061.
- Hewitt, P. L., & Flett, G. L. (1991). Perfectionism in the self and social contexts: Conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology*, 60(3), 456.
- Hewitt, P. L., Flett, G. L., Turnbull-Donovan, W., & Mikail, S. F. (1991). The Multidimensional Perfectionism Scale: Reliability, validity, and psychometric properties in psychiatric samples. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3(3), 464.
- Kawamura, K. Y., & Frost, R. O. (2004). Self-concealment as a mediator in the relationship between perfectionism and psychological distress. *Cognitive Therapy and Research*, 28(2), 183–191.
- Kline, R. B. (2010). *Principles and practice of structural equation modeling*. New York, NY: The Guilford Press. Retrieved from http://books.google.com.my
- Komiya, N., Good, G. E., & Sherrod, N. B. (2000). Emotional openness as a predictor of college students' attitudes toward seeking psychological help. *Journal of Counseling Psychology*, 47(1), 138.
- Kuo, B. C. H., Kwantes, C. T., Towson, S., & Nanson, K. M. (2007). Social beliefs as determinants of attitudes toward seeking professional psychological help among ethnically diverse university students. *Canadian Journal of Counselling and Psychotherapy/ Revue Canadienne de Counseling et de Psychothérapie*, 40(4), 224–241.
- Larson, D. G., & Chastain, R. L. (1990). Self-concealment: Conceptualization, measurement, and health implications. *Journal of Social and Clinical Psychology*, 9(4), 439–455.
- Lundh, L.-G. (2004). Perfectionism and acceptance. Journal of Rational-Emotive and Cognitive-Behavior Therapy, 22(4), 251–265.
- Masuda, A., & Boone, M. S. (2011). Mental health stigma, self-concealment, and helpseeking attitudes among Asian American and European American college students with no help-seeking experience. *International Journal for the Advancement of Counselling*, 33, 266–279. doi:10.1007/s10447-011-9129-1
- Moroz, M., & Dunkley, D. M. (2015). Self-critical perfectionism and depressive symptoms: Low self-esteem and experiential avoidance as mediators. *Personality and Individual Differences*, 87, 174–179.
- Nam, S. K., Chu, H. J., Lee, M. K., Lee, J. H., Kim, N., & Lee, S. M. (2010). A metaanalysis of gender differences in attitudes toward seeking professional psychological help. *Journal of American College Health*, 59(2), 110–116.

- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. doi:10.3758/BRM.40.3.879
- Sherry, D. L., Sherry, S. B., Hewitt, P. L., Mushquash, A., & Flett, G. L. (2015). The existential model of perfectionism and depressive symptoms: Tests of incremental validity, gender differences, and moderated mediation. *Personality and Individual Differences*, 76, 104–110.
- Sherry, S. B., Sabourin, B. C., Hall, P. A., Hewitt, P. L., Flett, G. L., & Gralnick, T. M. (2014). The perfectionism model of binge eating: Testing unique contributions, mediating mechanisms, and cross-cultural similarities using a daily diary methodology. *Psychology of Addictive Behaviors*, 28(4), 1230.
- Stoeber, J. (2015). How other-oriented perfectionism differs from self-oriented and socially prescribed perfectionism: Further findings. *Journal of Psychopathology and Behavioral Assessment*, 37(4), 611–623. doi:10.1007/s10862-015-9485-y
- Stoeber, J., & Corr, P. J. (2016). A short empirical note on perfectionism and flourishing. *Personality and Individual Differences*, 90, 50–53. doi:10.1016/ j.paid.2015.10.036
- Stoeber, J., Feast, A. R., & Hayward, J. A. (2009). Self-oriented and socially prescribed perfectionism: Differential relationships with intrinsic and extrinsic motivation and test anxiety. *Personality and Individual Differences*, 47(5), 423–428. doi:10.1016/ j.paid.2009.04.014
- Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. *Personality and Social Psychology Review*, 10(4), 295–319. doi:10.1207/s15327957pspr1004
- Strunk, C. M., Sorter, M. T., Ossege, J., & King, K. A. (2014). Emotionally troubled teens' help-seeking behaviors: An evaluation of surviving the Teens[®] Suicide Prevention and Depression Awareness Program. *The Journal of School Nursing*, 30(5), 366–375. doi:10.1177/1059840513511494
- Türküm, A. S. (2005). Who seeks help? Examining the differences in attitude of Turkish university students toward seeking psychological help by gender, gender roles, and help-seeking experiences. *The Journal of Men's Studies*, *13*(3), 389–401.
- Users, N. T. O. (2010). The light and dark sides of perfectionism implications for health and well-being.
- Wheaton, M. G., Sternberg, L., McFarlane, K., & Sarda, A. (2016). Self-concealment in obsessive-compulsive disorder: Associations with symptom dimensions, help seeking attitudes, and treatment expectancy. *Journal of Obsessive-Compulsive and Related Disorders*, 11, 43–48.
- Williams, C. J., & Cropley, M. (2014). The relationship between perfectionism and engagement in preventive health behaviours: The mediating role of self-concealment. *Journal of Health Psychology*, 19(10), 1211–1221.
- Zeifman, R. J., Atkey, S. K., Young, R. E., Flett, G. L., Hewitt, P. L., & Goldberg, J. O. (2015). When ideals get in the way of self-care perfectionism and self-stigma for seeking psychological help among high school students. *Canadian Journal of School Psychology*, 30(4), 273–287.

Author Biographies

Abbas Abdollahi is a post-doc student at Alzahra University. His research interests are perfectionism and psychological functions.

Simin Hosseinian is a full Professor at Alzahra University. Her research interests are counselling and family therapy.

Ahmad Beh-Pajooh is a full Professor at the University of Tehran. His research interest is family and children with special needs.

Per Carlbring is a full Professor at Stockholm University. His research interest is cognitive behaviour therapy.