



The association between self-oriented perfectionism and suicidal ideation in adolescents: The buffering role of social connectedness

Eliane Sommerfeld 

Department of Psychology, Ariel University, 3 Kiryat Hamada St., Ariel, Israel

ARTICLE INFO

Keywords:

Adolescence
Suicidal ideation
Perfectionism
Social connectedness
School

ABSTRACT

This study examined and compared the moderating roles of connectedness to parents, peers, friends, and school in the association between self-oriented perfectionism and suicidal ideation among adolescents in a non-clinical, community sample. Data on suicidal ideation, self-oriented perfectionism, and connectedness in these four domains were collected using self-report instruments from adolescents with no psychiatric history. The results showed that although connectedness to parents, friends, peers, and school was generally associated with lower suicidal ideation, it was only connectedness to friends, peers, and school that significantly moderated the association between self-oriented perfectionism and suicidal ideation. Conversely, connectedness to parents did not demonstrate a significant moderating effect. These findings underscore the potential role of social bonds outside the family in understanding how self-oriented perfectionism relates to adolescent suicide ideation. They highlight the possible role of the wider social environment, which may, in some cases, be more influential than parental connectedness in moderating the association between self-oriented perfectionism and adolescent well-being.

1. Introduction

Adolescent suicide is a pressing issue, with 22 % of high school students considering suicide in 2021—an increase from previous years (Centers for Disease Control and Prevention, 2022). It has been suggested that a portion of adolescents with suicidal ideation (i.e., thoughts about suicide) may eventually progress to planning (i.e., developing a plan to commit suicide) or engaging in suicidal behavior (Nock et al., 2013), underscoring the need to understand the psychosocial factors associated with suicidal ideation among adolescents. Perfectionism is a personality trait that can induce stress and is associated with an increased risk of suicidality (Smith et al., 2018). However, most research examined the role of perfectionism in suicidality in clinical settings and high-risk groups. The aim of the present study was to investigate the effect of self-oriented perfectionism on suicidal ideation in adolescents without psychiatric histories, as well as the roles of connectedness to parents, friends, peers, and school in mitigating this effect.

Perfectionism is a multidimensional personality trait characterized by a person's striving for flawlessness and setting excessively high performance standards, coupled with overly critical self-evaluations (Frost et al., 1990; Hewitt & Flett, 1991). It is usually accompanied by cognitive features (e.g., a tendency to ruminative thinking about the need to

be perfect) and interpersonal characteristics (e.g., a perfectionistic self-presentation) (Flett & Hewitt, 2022). As a trait, studies on perfectionism in adolescents are often based on Hewitt and Flett's (1991) model, that defines two types of perfectionism according to the perceived source of perfectionistic pressures; Socially prescribed perfectionism refers to the adolescent's perception that others have high expectations of oneself, while self-oriented perfectionism is characterized by the adolescent setting high standards for oneself, diligently striving to meet these goals (Hewitt & Flett, 1991).

Several theoretical models suggest that both temperamental factors, such as a fearful or persistent temperament, and environmental factors, particularly parents who set high expectations or exert control, shape the development of perfectionistic tendencies (Flett et al., 2002). Additionally, various factors have been proposed to explain how children internalize perfectionistic attitudes in their environment, integrating them into their self-concept in the form of self-oriented perfectionism (Hewitt & Flett, 1991). Apparently, the development of self-oriented perfectionism is influenced by a child's openness to socialization, a profound desire to please others, an intense need for approval, innate talents that motivate the child to excel, as well as exposure to social models that emphasize high standards and excellence (Flett et al., 2002). These elements may jointly contribute to the

E-mail address: sommerfelde@ariel.ac.il.

<https://doi.org/10.1016/j.actpsy.2025.104974>

Received 5 December 2024; Received in revised form 25 February 2025; Accepted 31 March 2025

Available online 6 April 2025

0001-6918/© 2025 The Author. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

emergence of self-oriented perfectionism, based on an interaction between internal dispositions and external influences.

Studies about the relationship between perfectionism and mental well-being produce mixed results, depending on the specific facets of perfectionism that are assessed, as well as the tools used to assess them (Osenk et al., 2020). There is some evidence suggesting that perfectionistic strivings, as opposed to perfectionistic concerns, can be adaptive, not adversely affecting mental health (Bieling et al., 2004; Klibert et al., 2005; Stoeber & Otto, 2006; Stoeber & Rambow, 2007). However, most studies show the harmful effects of perfectionism. Faced with problems and difficulties, perfectionist people tend to react in less effective ways (for example, avoiding tasks, overexerting, or failing to ask for help), which makes them more vulnerable in stressful situations (Flett & Hewitt, 2022). Indeed, perfectionism was found to be a risk factor for different psychological disorders, such as depression, anxiety, and eating disorders (Egan et al., 2011; Limburg et al., 2017).

Both forms of perfectionism, i.e., socially prescribed and self-oriented perfectionism, have been studied in relation to suicidality. However, the majority of studies are based on adults or on adolescent psychiatric patients, with limited inclusion of non-clinical adolescent samples. Overall, the body of evidence is larger and more consistent for socially-prescribed perfectionism as a significant risk factor for suicidal thoughts and behaviors (Hewitt & Flett, 1991; Roxborough et al., 2012). Findings regarding the direct link between self-oriented perfectionism and suicidality are generally not as strong or consistent as those found with socially-prescribed perfectionism (Klibert et al., 2005), with some studies reporting a direct link between self-oriented perfectionism and suicidal behavior (e.g., Hewitt et al., 1994; Smith et al., 2018), while others reporting an absence of a direct association between the two constructs (Blankstein et al., 2007; Klibert et al., 2005). As self-oriented perfectionism is associated with setting high personal standards and striving relentlessly to meet them, it can lead to significant achievements and is sometimes considered to be a more adaptive form of perfectionism. However, it can also result sometimes in high levels of personal stress and overly critical self-evaluations, and thus increase risk of suicidality, particularly when self-esteem is closely tied to achieving perfection and one experiences failure to meet one's high standards (Flett et al., 2002). Apparently, self-oriented perfectionism may be adaptive or maladaptive depending on other conditions (Blankstein et al., 2007).

The role of social and interpersonal factors in suicidality in adolescents is well-documented (King & Merchant, 2008; Marraccini & Brier, 2017). In general, social isolation is a risk factor for suicide, and inversely, social support is a protective factor against suicide (for reviews, King & Merchant, 2008; Motillon-Toudic et al., 2022). The Interpersonal Theory of Suicide (Joiner Jr et al., 2009) highlights the importance of interpersonal factors in understanding suicidality. It states that the likelihood of developing suicidal ideation increases when individuals experience thwarted belongingness – feeling alienated from others, lacking meaningful connections, or being persistently lonely – and when they view themselves as a burden on others, a condition known as perceived burdensomeness. The Perfectionism Social Disconnection Model (Hewitt et al., 2006; Roxborough et al., 2012) introduces an additional perspective to understanding suicidality by asserting that perfectionism, as a personality trait, can lead to social isolation, distress, and ultimately, suicidal behavior. Specifically, this model indicates that socially prescribed perfectionism leads to both objective and subjective forms of social disconnection (e.g., strained relationships, social isolation, loneliness), as well as interpersonal sensitivity and hostility, which in turn may increase suicidal behavior (Flett & Hewitt, 2022). Thus, in this model, social disconnection is positioned as a mediating variable between socially prescribed perfectionism and suicidality.

In adolescence, connectedness is manifested in different social domains, the main ones being in relation to parents, friends, peers, and school (Karcher & Sass, 2010). It was found that higher school connectedness, as well as family and peer support was associated with

lower levels of suicidal ideation among adolescents (Arango et al., 2019; King & Merchant, 2008; Marraccini & Brier, 2017). A recent study (Arango et al., 2023) found that for adolescents visiting emergency departments, connectedness to family, peers, and especially to schools reduce the chance of future suicide attempts, but only for adolescents who were not in a high-risk group (e.g., adolescents with no history of prior suicidal ideation, suicide attempts, or victimization). These findings imply that suicide in adolescents who are not in high-risk groups is more responsive to the buffering effect of connectedness, in comparison to adolescents with multiple risk factors.

In conclusion, the literature review reveals that research on the association between perfectionism and suicidality in adolescence has predominantly focused on clinical samples of at-risk adolescents (O'Connor, 2007; Smith et al., 2018), emphasizing the role of socially prescribed perfectionism in suicidality (Roxborough et al., 2012), and the mediating role of social disconnection in this relationship. Furthermore, while connectedness has been established as a protective factor against depression and suicidality (Arango et al., 2019; King & Merchant, 2008), its effectiveness in buffering the impact of personality risk factors like perfectionism remains unclear. The current study aims to broaden our understanding by focusing on a non-clinical population of adolescents without a psychiatric history. It examines the relationship between self-oriented perfectionism and suicidal ideation and investigates how social disconnection moderates this relationship. Specifically, the goal of the present study is to determine whether the association between self-oriented perfectionism and suicidal ideation depends on levels of connectedness, examining the moderating roles of four domains of connectedness: parents, friends, peers, and school.

The hypotheses were: (a) self-oriented perfectionism will be positively associated with suicidal ideation; (b) connectedness to parents, friends, peers, and school will be negatively associated with suicidal ideation; and (c) the association between self-oriented perfectionism and suicidal ideation will be dependent on levels of connectedness to parents, friends, peers, and school.

2. Methods

2.1. Participants

Participants were 100 adolescents (54 % girls) aged 12–18 years ($M = 15.4$, $SD = 1.78$), recruited from community settings and informal youth centers in a central city in X. Recruitment was conducted using a combination of convenience and snowball sampling, with initial outreach through community center staff, followed by participant referrals. A priori power analysis using G*Power (Faul et al., 2009) determined that a minimum sample size of 77 was required to achieve 0.80 power to detect a medium effect size at $p < .05$. The original sample included 106 adolescents, but six participants were excluded due to psychiatric medication use or enrollment in the special education system, ensuring a focus on a general, non-clinical population. The final sample consisted of students from the 7th to 12th grades in the regular school system. While no formal stratification was applied, participants represented a range of socioeconomic backgrounds. In terms of religiosity, 15 % identified as secular, 12 % as traditional, 70 % as religious, and 2 % did not report their religious affiliation.

2.2. Instruments

2.2.1. Suicidal ideation

The Paykel Suicide Scale (Karcher & Sass, 2010) was used to assess suicidal ideation. The scale comprises five items, with four items designed to evaluate suicidal ideation and the fifth item intended to assess actual suicide attempts. For the current study, only the four items related to suicidal ideation were utilized. Participants were instructed to evaluate the degree of their suicidal ideation over the preceding two weeks by rating each item on a scale that ranged from 'never' (1) to 'all

the time' (6). The reliability index for this scale was found to be good ($\alpha = 0.89$). Higher mean scores reflect higher levels of suicidal ideation.

2.2.2. Self-oriented perfectionism

Perfectionism was assessed by the Child and Adolescent Perfectionism Scale (CAPS) (Flett et al., 2016, b). The 22-item scale was developed to evaluate two forms of perfectionism observed in children and adolescents: socially prescribed and self-oriented perfectionism. For the purpose of the present study, only the self-oriented perfectionism scale was analyzed. Participants were asked to rate each item on a 5-point scale (1 = not at all true of me; 5 = very true about me). The reliability index for this scale was found to be satisfactory ($\alpha = 0.80$). Higher sum scores reflect higher levels of perfectionism.

2.2.3. Connectedness to friends, peers, and parents

The Hemingway: Measure of Adolescent Connectedness (Karcher & Sass, 2010) was designed to evaluate adolescents' relationships with important individuals and environments across different settings. For the current study, three 6-item scales of the questionnaire were applied to assess connectedness to parents, friends, and peers. Participants were asked to rate the extent to which each item is true, on a 5-point scale (1 = not at all; 5 = very true). The reliability indices for the scales were found to be acceptable (parents: $\alpha = 0.80$, friends: $\alpha = 0.82$; peers: $\alpha = 0.73$). Higher mean scores in each scale reflect higher levels of connectedness.

2.2.4. Connectedness to the school

Connectedness to school was assessed by the School Belonging scale (Anderman, 2002). This is a 5-item scale that examines the degree of belonging of high school students to their school. The items are rated by the participants on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). The reliability index was satisfactory ($\alpha = 0.80$). Higher mean scores reflect higher levels of connectedness to school.

2.3. Procedure

The study was approved by the Institutional Review Board. A short screening was conducted with parents of potential participants according to the exclusion criteria. The parents signed an informed consent form, and then we sent a link to an electronic questionnaire to the adolescents. The first page of the questionnaire provided an explanation about the study and an informed consent form adapted for adolescents. Only those adolescents who expressed consent were directed to the full questionnaire. At the end of the study, all participants were debriefed.

2.4. Statistical analysis

All statistical analyses were conducted with SPSS version 29. Descriptive statistics were calculated for the study variables. Pearson correlations were calculated to test the direct associations between self-oriented perfectionism, connectedness to parents, friends, peers, and school, and suicidal ideation. To examine the moderating role of the four connectedness scores in the associations between self-oriented perfectionism and suicidal ideation, four moderation analyses were performed

using the regression-based PROCESS supplement to SPSS (model 1) (Hayes, 2022), with bootstrapping based on 5000 bootstrap samples.

3. Results

The descriptive statistics and the correlations between the variables are presented in Table 1. As can be seen, self-oriented perfectionism was not found to be directly associated with suicidal ideation. Moreover, it was not linked to any measures of connectedness. In addition, all measures of connectedness – whether to parents, friends, peers, or school – negatively correlated with suicidal ideation. In other words, lower levels of connectedness in these domains were linked to higher levels of suicidal ideation. These modest correlations do not pose problems of multicollinearity.

The moderation analyses testing the role of each of the connectedness measures (parents, friends, peers, and school) as moderators in the association between self-oriented perfectionism and suicidal ideation revealed that the interactions between self-oriented perfectionism and connectedness to friends, peers, and school were significant. The results of these three analyses are presented in Table 2. As can be seen, the main effect of self-oriented perfectionism was not significant, but the main effects of connectedness to friends, school, and peer, as well as the interaction between these connectedness scores and self-oriented perfectionism, were significant. These significant interactions were probed into conditional effects at three levels of connectedness: low (standard deviation below the mean), average, and high (standard deviation above the mean). As shown in the lower section of the Table 2, the associations between self-oriented perfectionism and suicidal ideation were significant only when connectedness to friends, peers, and school were at their lowest level. When these indices of connectedness were at their average or highest levels, the relationship between self-oriented perfectionism and suicidal ideation was not significant.

Unlike these three indices of connectedness, connectedness to parents had a main effect on suicidal ideation, $B = -1.25$, $SE = 0.39$, $t = -3.22$, $p < .05$, 95%CI [-2.02, -0.48], but the interaction between self-oriented perfectionism and connectedness to parents was not significant, $B = -0.07$, $SE = 0.05$, $t = -1.33$, $p > .05$, 95%CI [-0.17, 0.03].

4. Discussion

In this study, the association between self-oriented perfectionism and suicidal ideation was moderated by connectedness to friends, peers, and school, with this association being stronger at lower levels of connectedness. However, when connectedness in these domains was average or higher, the association was not significant. Given that connectedness in these areas was associated with suicidal ideation and also moderated the relationship between self-oriented perfectionism and suicidal ideation, these findings suggest that social connectedness in these domains may function as both a protective factor (i.e., lower levels of connectedness correspond with higher suicidal ideation), and a potential buffer, moderating the association between self-oriented perfectionism and suicidal ideation. Consistent with previous studies (e.g., Boyd et al., 2022; Foster et al., 2017; Mackin et al., 2017), higher levels of connectedness to parents were negatively correlated with suicidal

Table 1
Descriptive statistics and correlations for study variables.

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Suicidal Ideation	1.00	2.56	–				
2. Self-Oriented Perfectionism	37.03	7.23	0.12	–			
3. Connectedness to the school	4.05	0.73	–0.42***	0.07	–		
4. Connectedness to peers	4.15	0.57	–0.27**	0.05	0.41***	–	
5. Connectedness to friends	4.21	0.69	–0.29**	–0.03	0.29**	0.42***	–
6. Connectedness to parents	4.17	0.63	–0.33***	0.01	0.40***	0.31**	0.33***

** $p < .01$.

*** $p < .001$.

Table 2

Moderation analyses testing the moderating role of connectedness in the association between self-oriented perfectionism and suicidal ideation.

	Connectedness to friends				Connectedness to school				Connectedness to peers			
	B	SE	t	95%CI	B	SE	t	95%CI	B	SE	t	95%CI
Self-oriented perfectionism	0.06	0.03	1.92	[−0.002, 0.13]	0.05	0.03	1.65	[−0.01, 0.11]	0.05	0.03	1.49	[−0.02, 0.11]
Connectedness	−0.97	0.35	−2.80**	[−1.65, −0.28]	−1.50	0.31	−4.92***	[−2.11, −0.89]	−0.85	0.43	−1.97*	[−1.71, 0.01]
Interaction	−0.21	0.06	−3.31**	[−0.33, −0.08]	−0.14	0.04	−3.18**	[−0.22, −0.05]	−0.18	0.06	−3.10**	[−0.30, −0.07]
Conditional effects of connectedness to friends												
Low	0.20	0.06	3.41**	[0.09, 0.32]	0.15	0.04	3.42***	[0.06, 0.24]	0.15	0.05	3.20**	[0.06, 0.25]
Average	0.06	0.03	1.92	[−0.002, 0.13]	0.05	0.03	1.65	[−0.01, 0.11]	0.05	0.03	1.49	[−0.02, 0.11]
High	−0.08	0.05	−1.61	[−0.17, 0.02]	−0.05	0.04	−1.11	[−0.14, 0.04]	−0.05	0.05	−1.18	[−0.15, 0.04]
R = 0.44, R ² = 0.19, F (3, 96) = 7.50, p < .001												
R = 0.52, R ² = 0.27, F (3, 96) = 11.92, p < .001												
R = 0.41, R ² = 0.17, F (3, 96) = 6.61, p < .001												

* p = .05.

** p < .01.

*** p < .001.

ideation. However, connectedness to parents did not significantly moderate the association between self-oriented perfectionism and suicidal ideation. This finding suggests that parental connectedness may function as a protective factor through different mechanisms than peer and school connectedness.

The reason why relationships with friends and peers are more strongly associated with buffering the distress linked to self-oriented perfectionism, compared to parental connectedness, is not fully understood and requires further research. A possible explanation is that as children grow older, they spend more time with peers and friends and less with their parents (Larson & Richards, 1991). Consequently, peers and friends may be more influential in shaping how perfectionistic tendencies relate to adolescents' mental well-being. Additionally, self-oriented perfectionistic behaviors are pronounced in educational settings, where they are associated with academic concerns and stress (Flett et al., 2016, b). Therefore, it is possible that friends and peers who face similar academic challenges play a role in shaping how much these perfectionistic tendencies contribute to mental distress. Furthermore, coping assistance often involves empathy from others who are in similar situations, and may help an individual feel less alienated or abnormal and provide validation for their distress (Thoits, 1986). Peers and friends play a crucial role in providing emotional support (Roach, 2018), helping adolescents cope with negative emotions and internal conflicts (Steinberg & Morris, 2001), and offering a platform for emotional expression and validation that may be important for regulating emotions (Parke et al., 2006). Thus, these findings support the idea that peer and friend relationships are uniquely positioned to be linked with reduced distress among adolescents with perfectionistic tendencies.

The findings of this study highlight the role of the school as both a potential protective factor against suicidal ideation and as a moderator of the association between self-oriented perfectionism and suicidal ideation. These results align with previous research, which indicates that adolescents who feel a stronger connection to their school tend to report lower levels of suicidal ideation (for a meta-analysis, Marraccini & Brier, 2017). This study extends previous research by suggesting that schools, which often emphasize persistence, success, and excellence, may also be particularly relevant for adolescents with self-oriented perfectionism, i.e., those who have incorporated these values into their self-concept.

Together, these findings contribute to the Perfectionism Social Disconnection Model (Hewitt et al., 2006), suggesting that disconnection not only mediates the association between socially prescribed perfectionism and suicidal ideation as it is originally postulated by the model, but also interacts with self-oriented perfectionism in explaining variance in suicidal ideation among adolescents. Additionally, these findings correspond with theories that discuss the potential buffering role of social support (Cohen & Wills, 1985; Lakey & Cohen, 2000). Social support involves actions that typically make an individual feel

cared for, loved, and valued, reinforcing their sense of belonging to a social network, and helping individuals navigate stress (Cobb, 1976; Kleiman & Liu, 2013).

Since social support and social connectedness are interrelated constructs and both have been linked to lower suicidal ideation (Reyes et al., 2020), the extensive literature on social support may provide a useful framework for understanding the role of social connectedness in the mental well-being of adolescents with self-oriented perfectionism. Theories of social support suggest that both actual support (i.e., assistance received from others) and perceived support (i.e., the belief that help is available if needed) may help address the adverse effects of stressful events. Several mechanisms have been proposed to explain how social support relates to stress reduction, including enhancing an individual's ability to cope with stressors, shaping their perceptions of themselves, others, and the stressful situation, or generally improving self-esteem through social support (Lakey & Cohen, 2000). Since self-oriented perfectionism is often associated with stressful situations, particularly when an individual's self-esteem is contingent upon achieving perfection and notably in instances where perfection is not attained (Flett et al., 2002), it is possible that perceived social connectedness and support play a role in helping adolescents manage the stress arising from a perfectionist personality style. Indeed, prior research conducted on undergraduate students suggests that perceived support from significant others may buffer the association between self-oriented perfectionism and suicidal ideation (Blankstein et al., 2007).

This study has several limitations that warrant caution when interpreting the results. First, it is based on a relatively small community sample of adolescents, which limits the generalizability of the findings. Research on perfectionism and suicidality among non-clinical adolescent populations remains scarce, and additional studies involving larger and more culturally diverse non-clinical samples are needed. Expanding research in this direction would not only strengthen the external validity of the findings but also allow for an examination of how cultural factors shape these relationships. Given that cultural norms influence how individuals experience and benefit from social connectedness, future research should explore whether the buffering effect of connectedness on suicidal ideation varies across different cultural contexts, employing comparative or cross-cultural study designs. Additionally, this study did not account for potential family background factors that may influence the relationship between adolescent self-oriented perfectionism, connectedness and suicidal ideation. Prior research indicates that family characteristics, such as socioeconomic status, parenting styles, and familial mental health history, can confound the associations between peer relationships and psychological outcomes (Kim, 2021). Future research should incorporate these family-related variables to better isolate the unique contributions of different social contexts. Second, the study's cross-sectional design precludes causal inferences between the examined variables. Longitudinal research is necessary to capture the

associations between self-oriented perfectionism, social connectedness, and suicidal ideation over time, providing greater insight into potential directional influences. Third, this study relied on self-report measures, which are valuable for assessing subjective perceptions of social connectedness and belongingness. However, these measures remain limited in scope and may introduce biases. Future research should supplement self-reports with objective indices of social integration, such as school reports, teacher assessments, or parental feedback, to enhance the validity of the findings. Additionally, while our quantitative approach enabled us to examine statistical relationships, future research could benefit from integrating qualitative methods, such as interviews or focus groups, to explore the underlying mechanisms driving the interaction between self-oriented perfectionism and connectedness in greater depth. Finally, this study focused on a community sample of adolescents and intentionally excluded individuals with diagnosed psychiatric histories. This decision was made to address a critical gap in the literature, as non-clinical adolescent samples are underrepresented despite their relevance for understanding early risk factors and resilience mechanisms outside of clinical settings. While this approach enhances knowledge of these relationships in a general population, it also limits the applicability of the findings to clinical settings. Future research should adopt a mixed-sample approach incorporating both clinical and non-clinical adolescents, to examine whether the observed relationships vary across populations with different levels of psychopathology.

Despite these limitations, the current study contributes to the literature by highlighting associations between self-oriented perfectionism, as a personality variable, and environmental and social factors in relation to adolescents' suicidal ideation. Although the relationship with parents is crucial for adolescent adjustment and plays significant roles in their emotional and social development (Scholte & Van Aken, 2020), the findings of this study suggest that the social milieu (i.e., friends, peers, and school) may be particularly relevant for adolescents' psychological well-being. Specifically, the findings indicate that among adolescents with average or higher levels of social connectedness, the association between self-oriented perfectionism and suicidal ideation is no longer significant. If future studies, including longitudinal research, support these findings, they could help inform psychoeducational interventions in schools and other adolescent settings. Teachers and school counselors play an important role in fostering a supportive environment that may help students navigate academic and social pressures (Murray-Harvey & Slee, 2007). Considering that connectedness can be strengthened through psychoeducational interventions (Allen et al., 2022), future programs could explore ways to enhance the connectedness of adolescents who exhibit self-oriented perfectionistic tendencies, which may help alleviate psychological distress and potentially reduce suicide risk. However, further research is needed to establish the directionality and underlying mechanisms of these associations before specific intervention strategies can be recommended.

CRediT authorship contribution statement

Eliane Sommerfeld: Writing – review & editing, Writing – original draft, Project administration, Methodology, Formal analysis, Conceptualization.

Informed consent

Informed consent was obtained from all individual participants included in the study, as well as from their parents.

Ethics approval

Approval was obtained from the ethics committee of Ariel University. The procedures used in this study adhere to the tenets of the Declaration of Helsinki.

Declaration of Generative AI and AI-assisted technologies in the writing process

During the preparation of this work the author used Chat GPT in order to improve language and readability. After using this tool, the author reviewed and edited the content as needed and takes full responsibility for the content of the publication.

Funding

No funding was received to assist with the preparation of this manuscript.

Declaration of competing interest

The author has no relevant financial or non-financial interests to disclose.

Data availability

Data will be made available on request.

References

- Allen, K. A., Jamshidi, N., Berger, E., Reupert, A., Wurf, G., & May, F. (2022). Impact of school-based interventions for building school belonging in adolescence: A systematic review. *Educational Psychology Review*, 34(1), 229–257.
- Anderman, M. (2002). School effects on psychological outcomes during adolescence. *Journal of Educational Psychology*, 94(4), 795–809.
- Arango, A., Brent, D., Grupp-Phelan, J., Barney, B. J., Spirito, A., Mroczkowski, M. M., Shenoi, R., Mahabee-Gittens, M., Casper, T. C., King, C., & in collaboration with the Pediatric Emergency Care Applied Research Network (PECARN). (2023). Social connectedness and adolescent suicide risk. *Journal of Child Psychology and Psychiatry*, jcpp.13908. <https://doi.org/10.1111/jcpp.13908>.
- Arango, A., Cole-Lewis, Y., Lindsay, R., Yeguez, C. E., Clark, M., & King, C. (2019). The protective role of connectedness on depression and suicidal ideation among bullied youth. *Journal of Clinical Child & Adolescent Psychology*, 48(5), 728–739.
- Bieling, P. J., Israeli, A. L., & Antony, M. M. (2004). Is perfectionism good, bad, or both? Examining models of the perfectionism construct. *Personality and Individual Differences*, 36(6), 1373–1385.
- Blankstein, K. R., Lumley, C. H., & Crawford, A. (2007). Perfectionism, hopelessness, and suicide ideation: Revisions to diathesis-stress and specific vulnerability models. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 25(4), 279–319. <https://doi.org/10.1007/s10942-007-0053-6>.
- Boyd, D. T., Quinn, C. R., Jones, K. V., & Beer, O. W. (2022). Suicidal ideations and attempts within the family context: The role of parent support, bonding, and peer experiences with suicidal behaviors. *Journal of Racial and Ethnic Health Disparities*, 9, 1740–1749.
- Centers for Disease Control and Prevention. (2022). *Youth risk behavior survey: Data summary and trends report 2021*. Department of Health and Human Services: U.S. https://www.cdc.gov/healthyyouth/data/yrbs/pdf/2021/2021_YRBS_Data_Summary_Trends_Report.pdf.
- Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine*, 38, 300–314.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310.
- Egan, S. J., Wade, T. D., & Shafran, R. (2011). Perfectionism as a transdiagnostic process: A clinical review. *Clinical Psychology Review*, 31(2), 203–212. <https://doi.org/10.1016/j.cpr.2010.04.009>.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149–1160. <https://doi.org/10.3758/BRM.41.4.1149>.
- Flett, G. L., & Hewitt, P. L. (2022). Perfectionism in childhood and adolescence: A developmental approach. *American Psychological Association*. <https://doi.org/10.1037/0000289-000>.
- Flett, G. L., Hewitt, P. L., Besser, A., Su, C., Vaillancourt, T., Boucher, D., ... & Gale, O. (2016). The Child-Adolescent Perfectionism Scale: Development, psychometric properties, and associations with stress, distress, and psychiatric symptoms. *Journal of Psychoeducational Assessment*, 34(7), 634–652.
- Flett, G. L., Hewitt, P. L., Besser, A., Su, C., Vaillancourt, T., Boucher, D., Munro, Y., Davidson, L. A., & Gale, O. (2016). The Child-Adolescent Perfectionism Scale: Development, Psychometric Properties, and Associations With Stress, Distress, and Psychiatric Symptoms. *Journal of Psychoeducational Assessment*, 34(7), 634–652. <https://doi.org/10.1177/0734282916651381>.
- Flett, G. L., Hewitt, P. L., Oliver, J. M., & Macdonald, S. (2002). Perfectionism in children and their parents: A developmental analysis. In G. L. Flett, & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 89–132). American Psychological Association. <https://doi.org/10.1037/10458-004>.

- Foster, C. E., Horwitz, A., Thomas, A., Opperman, K., Gipson, P., Burnside, A., & King, C. A. (2017). Connectedness to family, school, peers, and community in socially vulnerable adolescents. *Children and Youth Services Review*, 81, 321–331.
- Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research*, 14, 449–468.
- Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.
- 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., Sherry, S. B., & Caelian, C. (2006). Trait perfectionism dimensions and suicidal behavior. In T. E. Ellis (Ed.), *Cognition and suicide: Theory, research, and therapy* (pp. 215–235). Washington, DC: American Psychological Association.
- Hewitt, P. L., Flett, G. L., & Weber, C. (1994). Dimensions of perfectionism and suicide ideation. *Cognitive Therapy and Research*, 18(5), 439–460. <https://doi.org/10.1007/BF02357753>
- Joiner, T. E., Jr., Van Orden, K. A., Witte, T. K., Selby, E. A., Ribeiro, J. D., Lewis, R., & Rudd, M. D. (2009). Main predictions of the interpersonal-psychological theory of suicidal behavior: Empirical tests in two samples of young adults. *Journal of Abnormal Psychology*, 118(3), 634.
- Karcher, M. J., & Sass, D. (2010). A multicultural assessment of adolescent connectedness: Testing measurement invariance across gender and ethnicity. *Journal of Counseling Psychology*, 57(3), 274.
- Kim, J. (2021). The quality of social relationships in schools and adult health: Differential effects of student–student versus student–teacher relationships. *School Psychology*, 36(1), 6–16. <https://doi.org/10.1037/spq0000373>
- King, C. A., & Merchant, C. R. (2008). Social and interpersonal factors relating to adolescent suicidality: A review of the literature. *Archives of Suicide Research*, 12(3), 181–196. <https://doi.org/10.1080/13811110802101203>
- Kleiman, E. M., & Liu, R. T. (2013). Social support as a protective factor in suicide: Findings from two nationally representative samples. *Journal of Affective Disorders*, 150(2), 540–545.
- Klibert, J. J., Langhinrichsen-Rohling, J., & Saito, M. (2005). Adaptive and maladaptive aspects of self-oriented versus socially prescribed perfectionism. *Journal of College Student Development*, 46(2), 141–156. <https://doi.org/10.1353/csd.2005.0017>
- Lakey, B., & Cohen, S. (2000). Social support theory and measurement. In S. Cohen, L. G. Underwood, & B. H. Gottlieb (Eds.), *Social support measurement and intervention* (pp. 29–52). Oxford University Press. <https://doi.org/10.1093/med:psych/9780195126709.003.0002>
- Larson, R., & Richards, M. H. (1991). Daily companionship in late childhood and early adolescence: Changing developmental contexts. *Child Development*, 62(2), 284–300.
- Limburg, K., Watson, H. J., Hagger, M. S., & Egan, S. J. (2017). The relationship between perfectionism and psychopathology: A meta-analysis. *Journal of Clinical Psychology*, 73(10), 1301–1326. <https://doi.org/10.1002/jclp.22435>
- Mackin, D. M., Perlman, G., Davila, J., Kotov, R., & Klein, D. N. (2017). Social support buffers the effect of interpersonal life stress on suicidal ideation and self-injury during adolescence. *Psychological Medicine*, 47(6), 1149–1161. <https://doi.org/10.1017/S0033291716003275>
- Marraccini, M. E., & Brier, Z. M. F. (2017). School connectedness and suicidal thoughts and behaviors: A systematic meta-analysis. *School Psychology Quarterly*, 32(1), 5–21. <https://doi.org/10.1037/spq0000192>
- Motillon-Toudic, C., Walter, M., Séguin, M., Carrier, J.-D., Berrouguet, S., & Lemey, C. (2022). Social isolation and suicide risk: Literature review and perspectives. *European Psychiatry*, 65(1), Article e65. <https://doi.org/10.1192/j.eurpsy.2022.2320>
- Murray-Harvey, R., & Slee, P. T. (2007). Supportive and stressful relationships with teachers, peers and family and their influence on students' social/emotional and academic experience of school. *Australian Journal of Guidance and Counselling*, 17(2), 126–147. <https://doi.org/10.1375/ajgc.17.2.126>
- Nock, M. K., Green, J. G., Hwang, I., McLaughlin, K. A., Sampson, N. A., Zaslavsky, A. M., & Kessler, R. C. (2013). Prevalence, correlates, and treatment of lifetime suicidal behavior among adolescents: Results from the National Comorbidity Survey Replication Adolescent Supplement. *JAMA Psychiatry*, 70(3), 300–310. <https://doi.org/10.1001/2013.jamapsychiatry.55>. PMID: 23303463; PMCID: PMC3886236
- O'Connor, R. C. (2007). The relations between perfectionism and suicidality: A systematic review. *Suicide and Life-threatening Behavior*, 37(6), 698–714. <https://doi.org/10.1521/suli.2007.37.6.698>
- Osenk, I., Williamson, P., & Wade, T. D. (2020). Does perfectionism or pursuit of excellence contribute to successful learning? A meta-analytic review. *Psychological Assessment*, 32(10), 972–983. <https://doi.org/10.1037/pas0000942>
- Parke, R. D., McDowell, D. J., Cladis, M., & Leidy, M. S. (2006). Family and peer relationships: The role of emotion regulatory processes. In D. K. Snyder, J. E. Simpson, & J. N. Hughes (Eds.), *Emotion regulation in couples and families: Pathways to dysfunction and health* (pp. 143–162). American Psychological Association.
- Reyes, M. E. S., Davis, R. D., Chua, C. A. P. Q., Olaveria, G. L., Pamintuan, L. J. E., Serrano, M. K. B., & Tan, J. L. E. C. (2020). Relative importance of social support and social connectedness as protective factors of suicidal ideation among selected Filipino late adolescents. *Suicidology Online*, 11(1).
- Roach, A. (2018). Supportive peer relationships and mental health in adolescence: An integrative review. *Issues in Mental Health Nursing*, 39(9), 723–737. <https://doi.org/10.1080/01612840.2018.1496498>
- Roxborough, H. M., Hewitt, P. L., Kaldas, J., Flett, G. L., Caelian, C. M., Sherry, S., & Sherry, D. L. (2012). Perfectionistic self-presentation, socially prescribed perfectionism, and suicide in youth: A test of the Perfectionism Social Disconnection Model. *Suicide and Life-threatening Behavior*, 42(2), 217–233. <https://doi.org/10.1111/j.1943-278X.2012.00084.x>
- Scholte, R. H., & Van Aken, M. A. (2020). Peer relations in adolescence. In *Handbook of adolescent development* (pp. 175–199). Psychology Press.
- Smith, M. M., Sherry, S. B., Chen, S., Saklofske, D. H., Mushquash, C., Flett, G. L., & Hewitt, P. L. (2018). The perniciousness of perfectionism: A meta-analytic review of the perfectionism–suicide relationship. *Journal of Personality*, 86(3), 522–542. <https://doi.org/10.1111/jopy.12333>
- Steinberg, L., & Morris, A. S. (2001). Adolescent Development. *Journal of Cognitive Education and Psychology*, 2(1), 55–87. <https://doi.org/10.1891/1945-8959.2.1.55>
- Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. *Personality and Social Psychology Review*, 10(4), 295–319.
- Stoeber, J., & Rambow, A. (2007). Perfectionism in adolescent school students: Relations with motivation, achievement, and well-being. *Personality and Individual Differences*, 42(7), 1379–1389.
- Thoits, P. A. (1986). Social support as coping assistance. *Journal of Consulting and Clinical Psychology*, 54(4), 416.