International Journal of Mental Health and Addiction
https://doi.org/10.1007/s11469-023-01053-7

ORIGINAL ARTICLE

Social Comparison of Mental Health, Deliberate Self-injury and Help-Negation

Brie Turner[1] · **Leonie Miller**[2] · **Frank Deane**[2]

Accepted: 11 April 2023

Abstract
Those engaging in deliberate self-injury (DSI) demonstrate low professional help-seeking rates. Help-negation in the context of deliberate self-injury refers to a relationship where higher levels of self-injury are associated with lower help-seeking intentions. This study aims to investigate whether social comparison processes and other variables contribute to help-negation. One hundred and eighty-three university students completed self-report questionnaires assessing DSI and help-seeking variables. Hierarchical multiple regression analysis was used to identify predictors of help-seeking intentions from mental health professionals for suicidal thoughts. A help-negation relationship was observed in that a greater DSI history was associated with reduced intentions to seek help. This effect remained after controlling for psychological distress and distress tolerance. Mental health comparison, specifically the tendency to rate one's mental health as worse than others, significantly contributed to the prediction of help-seeking intentions. Lower prior help-seeking, higher frequency of DSI and the worse participants saw their mental health in comparison to others were all associated with lower help-seeking intentions for suicidal thoughts, consistent with help-negation. It is speculated that DSI may function as a strategy to protect against suicidality and lower intentions to seek help for suicidal ideation. Prospective longitudinal research is recommended to test this explanation and include a measure of the function of DSI.

Keywords Deliberate self-injury · Help-negation · Help-seeking intentions · Suicidal ideation · Social comparison

Deliberate self-harm (DSI) refers to the intentional injuring of oneself, without intent to die (Frost et al., 2017). DSI has been associated with increased levels of psychological distress and an increased risk of suicidal behaviour or completed suicide, with reports that those engaging in DSI have a rate of completed suicide 37.2% greater than an equivalent general population cohort (Olfson et al., 2017). The transition from DSI to self-injury with suicidal

✉ Brie Turner
blt75@uowmail.edu.au

[1] School of Psychology, University of Wollongong, 6/70 Cliff Road, Wollongong, NSW 2500, Australia

[2] School of Psychology, University of Wollongong, Wollongong, NSW 2522, Australia

intentions usually involves increasing levels of suicidal ideation (Hamza et al., 2012). It is also theorised that repeated exposure and habituation to painful and feared behaviours (e.g. DSI and suicide attempts) increase the acquired capability for suicide over time (Joiner, 2005). Greater exposure begets increased tolerance to the pain and reduced fear of self-injury which in turn increases the likelihood of future suicidality, with those more likely to attempt suicide having a longer history of self-injurious behaviour and the absence of pain during DSI (Joiner, 2005).

Research indicates that many of those engaging in DSI do not seek help from professional sources, and if they do seek help, they more often seek informal support from their social network (Jorm et al., 2007; Michelmore & Hindley, 2012; Rickwood et al., 2007). Broadly speaking, younger and adult women are more inclined than men to seek help for a range of problems and report greater internal functions of DSI, such as affect regulation (Rickwood et al., 2005; Victor et al., 2018). Unhelpful past experiences have been reported to generate negative evaluations of the act of help-seeking and evoke feelings of hopelessness about the outcome and thus function as a barrier to seeking professional psychological help (Meheli & Lewis, 2022; Rickwood et al., 2005). Despite the potential gateway to professional help via informal sources such as peers, help is often avoided for both genders due to social and self-stigma concerns, attitudes about help-seeking and shame or helplessness (Wilson, 2010; Biddle et al., 2007).

The process of withdrawing from or refusing help when experiencing psychological problems, particularly in relation to suicidal ideation, has been labelled as help-negation (Wilson & Deane, 2012). A specific finding referred to as the *help-negation effect* denotes the inverse relationship between suicidal ideation (and other forms of psychological distress) and actual help-seeking or intentions to seek help. This relationship has been found in both clinical and nonclinical samples (Turner et al., 2021; Wilson & Deane, 2012; Wilson & Deane, 2010). Although research examining help-negation for suicidal ideation and psychological distress has explored explanatory variables such as hopelessness, prior help experiences, male/female gender, attitudes, stigma, shame, treatment fears and confidentiality concerns, they do not fully explain the presence of this relationship (Han et al., 2018). The precise reason or mechanism for this inverse relationship remains unclear (Deane et al., 2001). Furthermore, to date, there is a dearth of research on help-negation in relation to DSI. One exception is a study by Frost et al. (2017) that sought to establish whether help-negation was present for DSI across different sources of support in a sample of young people aged 14–25 years. Participants were recruited via a psychology student research pool, social media and mental health websites. A help-negation relationship was observed for self-injury, yet, only for intentions to seek help from friends and family and not from professional mental health services. Specifically, greater severity of self-injury was independently associated with lower intentions to seek help from family and friends and this effect remained after controlling for suicidal ideation and psychological distress (Frost et al., 2017). The results suggest that psychological distress and suicidal ideation do not fully account for the help-negation relationship between self-harm and help-seeking intentions and point to the need to clarify the factors that are associated with the help-negation relationship in the context of self-injurious behaviour.

It is a seemingly paradoxical finding that in nonclinical samples, those in the highest levels of distress can be the least likely to seek help (Liddle et al., 2021; Wilson, 2010). Problem awareness and the appraisal that one's difficulties may require professional intervention are initial steps in the help-seeking process (Rickwood et. al, 2005), so it would be expected that the greater the extent of psychological distress experienced, the more likely it is that problem recognition would occur and this would subsequently

increase the probability of help-seeking. However, help-seeking research consistently demonstrates that a range of forms of psychological distress (e.g. suicidal ideation, symptoms of depression) have little or no positive association with help-seeking intentions and frequently reveal reliable negative correlations with intentions to seek help from a variety of sources (e.g. Turner et al., 2021; Wilson & Deane, 2012). Nonetheless, despite the reported inverse relationship with help-seeking, it is still meaningful to consider psychological distress as a potential predictor of such. Theory proposes there is a threshold for symptom severity, in which a point of recognition for help occurs when psychological distress hits a point of crisis, and it is at this point that help-seeking is initiated (Biddle et al., 2007). The theory states that other factors such as coping strategies operate to delay help-seeking but it is the presence of 'real' distress that ultimately promotes the act (Biddle et al., 2007).

In the context of self-harm behaviours, there is a need to consider other variables that might contribute to help-negation. One of the most commonly endorsed functions of DSI is affect regulation, with 93% of questionnaire-based studies endorsing distress management as the reason for DSI (Edmondson et al., 2016; Klonsky, 2009). It is possible that distress tolerance, defined as the capacity to experience and endure negative psychological states (Simons and Gaher, 2005), may in part explain the role of psychological distress in help-seeking. If DSI successfully operates to provide short-term relief from distress, this reinforcement increases the chances of behaviour repetition, higher pain tolerance and habituation (Nock, 2009). Importantly, this temporary relief may also decrease the perceived need for external help. Furthermore, acknowledgment that you have a problem that requires professional help is also likely to be influenced by those in your immediate circle, with research highlighting the importance of informal support sources in encouraging help-seeking practises (Rickwood, 2017). Socialisation effects are considered to function as a behavioural motivator or extinguisher either promoting or hindering help-seeking, dependent on perceived normative beliefs and practises or on anticipated or real responses from influential others. In their review, Michelmore and Hindley (2012) reported that less than a quarter of young people responding to a self-injuring peer encouraged help be sought from an adult. Various reasons may explain this lack of referral (e.g. fear of relational damage, hospitalisation fears), yet it is also of interest to consider the implicit communication of this action from a social norms standpoint. The act of not encouraging help may also model a social precedent for delaying or not seeking help for DSI among young people. Being vulnerable to peer influence and assessing personal and social worth via their perception of group 'fit', young people compare and match behaviour with those around them to maintain self-esteem and gain peer approval (Berkowitz, 2004). Therefore, comparison with known others in this context could exert an influence on help-seeking for DSI which makes social norms, social learning and social comparisons of interest in predicting help-seeking practises.

Such social comparison processes likely influence how we evaluate our psychological distress compared to that of relevant others and have been linked to help-seeking behaviour (Mojtabai, 2008; Turner et al., 2021). Those whose comparisons of psychological distress are 'downward' (I have less distress compared to others) have shown less help-seeking behaviour (Mojtabai, 2008). Other studies support the notion that individuals are more likely to seek mental health or medical treatment when they view their distress or impairments as more severe than that of others (Goodman, et al., 1984; Hurt et al., 2001; Vogel, et al., 2005). Interestingly, even those expressing severe distress still determine their help-seeking need and intentions based on whether they see themselves as more or less distressed than others, rather than via their own subjective distress experience (Biddle et al.,

2007; Mojtabai, 2008). These findings suggest social comparison processes can play a role in problem recognition and help-seeking behaviour.

The 'Cycle of Avoidance' (COA) model of help-seeking (Biddle et al., 2007) highlights the importance of social comparison in the help-seeking process. This model posits a threshold theory in which individuals split distress into divergent categories of 'real' (pervasive, enduring and abnormal) and 'normal' (universally experienced). Lay self-diagnosis is conducted using these categories and strategies (normalising, temporalising, comparison) are mobilised to avoid a diagnosis of 'real' distress due to perceived negative associations. The COA theory posits that attempts to tolerate and cope with increasing levels of psychological distress occur in large part due to downward normative comparisons resulting in delays in problem recognition and help-seeking. The present study sought to examine the relationships between DSI, psychological distress, distress tolerance and mental health comparison and intentions to seek help from a mental health professional for suicidal ideation. The study aims to clarify whether distress tolerance and perceived mental health in comparison to others can account for the associations of DSI and psychological distress to help-seeking intentions, whilst controlling for other background variables (gender and prior professional help-seeking).

It was hypothesised that, consistent with a help-negation effect, levels of DSI and psychological distress will be inversely related to intentions to seek help from a mental health professional for suicidal thoughts. It was also hypothesised that greater distress tolerance and better perceived mental health in comparison to others would also be inversely related to intentions to seek help from a mental health professional for suicidal thoughts.

Method

Participants

Participants were 183 undergraduate psychology students recruited using the School of Psychology's online research participation scheme. Participation in the study was voluntary and students could elect to participate in the research for course credit. Table 1 provides the sample's demographic information.

Measures

Background Information A brief questionnaire was used to collect demographic information on participants in the study as gender and prior help-seeking were used as control variables in the current study. Prior help-seeking was measured using the question: 'Have you ever sought help from a mental health professional (such as a counsellor, psychiatrist, psychologist, mental health worker or social worker)? Yes/No'. Table 2 provides the descriptive data for the following measures used in the study.

The Depression, Anxiety and Stress Scale 21 (DASS-21; Lovibond & Lovibond, 1995) The DASS-21 is a 21-item self-report scale that assesses the affective states of depression, anxiety and stress. Each item is rated on a 4-point Likert scale, with higher scores reflecting higher levels of depression, anxiety and stress. In the present study, the total scale was used and the Cronbach's alpha was 0.95, consistent with prior research (e.g. 0.93, Henry & Crawford, 2005).

Table 1 Sample descriptive statistics

	All ($N=183$)	Male ($N=35$)	Female ($N=148$)
Age, years (SD)	19.53 (2.64)	19.50 (2.20)	19.55 (2.75)
Gender%, female	80.90	-	-
Birth			
% Australia	88.50	97.10	89.20
% Other	11.50	2.90	10.80
Language			
% English	97.80	100.00	97.30
% Other	2.20	-	2.70
Ever sought help[a]			
% No	55.20	68.60	52.40
% Yes	44.30	31.40	47.60
Self-harm			
% No	37.20	34.30	37.80
% Yes	62.80	65.70	62.20

[a]Prior help-seeking history captured with the question 'Have you ever sought help from a mental health professional (such as a counsellor, psychiatrist, psychologist, mental health worker or social worker)?'

The Self-Harm Inventory (SHI; Sansone, et al., 1998) The SHI is a 22-item self-report measure that captures a broad range of self-harm behaviours. The question 'Have you ever intentionally or on purpose' is posed for a set of 22 self-harm behaviours (e.g. Item 2. Cut

Table 2 Descriptive statistics for questionnaires measures

	N	Minimum	Maximum	Mean	SD
Psychological distress[a]	182	0.00	54.00	15.62	12.17
Distress tolerance[b]	183	23.00	74.00	50.13	11.60
Social comparison[c]	183	20.00	56.00	39.33	6.70
Self-harm[d]	183	0.00	16.00	3.12	3.54
Help-seeking intentions—APD[e]	183	1.00	7.00	3.67	1.40
Help-seeking intentions—ST[f]	183	1.00	7.00	5.15	1.82
Seek help from no-one—N1[g]	183	1.00	7.00	2.44	1.86
Seek help from no-one—N2[h]	183	1.00	7.00	2.92	1.81
Mental health comparison[i]	182	3.00	15.00	9.29	2.50

[a]Psychological distress as measured by DASS-21, depression anxiety and stress scale 21. [b]Distress tolerance as measured by DTS, the distress tolerance scale. [c]Social comparison as measured by INCOM, Iowa-Netherlands comparison orientation scale. [d]Self-harm as measured by SHI, Self-harm inventory. [e]Intentions to seek help from a mental health professional for anxiety, personal/emotional problem and depression as measured by GHSQ-APD, general help-seeking questionnaire for anxiety, personal/emotional problem and depression. [f]Intentions to seek help from a mental health professional for suicidal thoughts as measured by GHSQ-ST, general help-seeking questionnaire for suicidal thoughts. [g]Intentions to seek help from no-one for suicidal thoughts as measured by GHSQ-N1, general help-seeking questionnaire-not seek help from anyone for suicidal thoughts. [h]Intentions to seek help from no-one for a personal/emotional problem, GHSQ-N2, general help-seeking questionnaire-not seek help from anyone for a personal/emotional problem. [i]Comparison of mental health with other Australians, students and friends as measured by MHC, mental health comparison

yourself on purpose; Item 4. Hit yourself; Item 9. Prevented wounds from healing). Each item has a 'yes' or 'no' response format. Scores are the total number of 'yes' responses. Cronbach's alpha has been reported at 0.83 (Latimer, et al., 2009) and was 0.81 in the current study.

The General Help-Seeking Questionnaire (GHSQ; Wilson et al., 2005a, 2005b) The GHSQ assesses future help-seeking intentions using a Likert scale (1 = extremely unlikely, 7 = extremely likely) in which respondents indicate how likely it is that they would seek help from a range of sources for a specified problem. The GHSQ has shown good test–retest reliability (0.92) and Cronbach's alpha has been reported at 0.85 (Wilson et al., 2005a, 2005b). The present study used the item stem that focused on help-seeking from a 'mental health professional'. Using this stem, three items were created for the following three problem types: (1) anxiety, (2) depression and (3) a personal emotional problem (e.g. 'If you were experiencing anxiety, how likely is it that you would seek help from a mental health professional?'). A mean score from the three items was used to obtain a measure of general help-seeking intentions from mental health professionals (GHSQ-APD). Cronbach's alpha was 0.85 for this variable. Using the other item stems specified in the GHSQ measure, three additional help-seeking intentions items were used. An item assessed intentions to seek help for 'suicidal thoughts' from a mental health professional (as in example above) (GHSQ-ST). Two items also assessed intentions to not seek help and specified seeking help from no-one for 'suicidal thoughts' and from no-one for a 'personal/emotional problem' (GHSQ N1-N2, respectively, e.g. If you were experiencing suicidal thoughts, how likely is it that you would seek help from no-one?).

The Distress Tolerance Scale (DTS; Simons & Gaher, 2005) The DTS is a 16-item self-report measure of emotional distress tolerance capturing appraisal, attention to negative emotions and regulation efforts. Higher item ratings on a 5-point Likert scale indicate higher distress tolerance. The DTS exhibits good internal consistency (Cronbach's alpha 0.89) and adequate test–retest reliability ($r = 0.61$) over a 6-month period (Simons and Gaher 2005). In the present study, Cronbach's alpha was 0.83.

The Iowa-Netherlands Comparison Orientation Scale (INCOM; Gibbons & Buunk, 1999) The INCOM is an 11-item self-report measure of social comparison. This measure assesses comparisons of abilities and opinions (e.g. Item 5. I always like to know what others in a similar situation would do). Items are rated on a 5-point Likert scale with higher scores indicating greater social comparison. The INCOM has good internal consistency with a Cronbach's alpha of 0.83 (Gibbons & Buunk, 1999) and was 0.79 in the current study.

Three additional social comparison items were generated for this study with an explicit focus on mental health in comparison to other Australians, fellow students and friends (e.g. 'Compared with other Australians I believe my mental health is…'); these were averaged to form a single mental health comparison (MHC) variable. This scale was based on the structure and content of existing social comparison measures (Mojtabai, 2008) and has been used in previous research (Turner et al., 2021). Items were rated on a 5-point Likert scale from 1 'far worse' to 5 'far better' with higher total scores indicating a more positive appraisal of one's mental health compared to others. Cronbach's alpha was 0.88 in the present study.

Procedure

Data collection took place in a computer lab in the School of Psychology where participants met with the researcher in group format, each session comprising no more than 20 participants. Participants were briefed about the study and given a participant information sheet and an informed consent form that outlined the risks and benefits of their research participation and listed the contact details of the University's mental health service and crisis lines for external providers. The initial briefing informed participants about the option to debrief with the researcher (a registered and practising clinical psychologist) after participation either face to face or via email should any distress arise due to participation and/or if they required help to access to support services. Participants were informed they could discontinue their participation at any time. Instructions for participating in the research were provided verbally. All participants provided written consent. This procedure was granted approval by the institutional Health and Medical Human Research Ethics Committee (approval number 2013/283).

Analytic Strategy

Scores for some variables were not normally distributed, and for these variables, non-parametric analyses were conducted. Spearman's rank correlation coefficients (ρ) were used to assess the strength and direction of the relationship between the self-report measures and mental health professional help-seeking intentions. Hierarchical multiple regression analysis was used to identify predictors of mental health professional help-seeking intentions for suicidal thoughts. To control for gender and prior help-seeking, these variables were entered at stage one of the regression. Self-harm was entered at stage two, symptoms of psychological distress at stage three, distress tolerance at stage four, social comparison at stage five and mental health comparison at stage six. The variables were entered in this order based on the following rationale: self-harm is established as a means of coping independently with negative affect and functions as an alternative to help-seeking which may delay the recognition of 'real' psychological distress until symptoms are critical and problem recognition occurs. The presence of real psychological distress would then potentially reveal individual differences in distress tolerance and this in turn could influence whether psychological distress is determined to be problematic. A final judgement of whether symptoms are deemed serious enough to enlist help would be informed by a general propensity to engage in social comparisons and specific comparisons of mental health between self and other.

Prior to interpreting the results of the MRA, assumptions were assessed. Box plot and stem and leaf tests indicated the presence of outliers with the psychological distress and self-harm variables; these were log variable transformed to increase the normality of the associated distributions. The assumptions of normality, linearity and homoscedasticity of residuals were met and Mahalanobis distance did not exceed the critical $x^2(df=6,\alpha=0.001)=22.46$ for any of the cases in the data file, indicating an absence of multivariate outliers. Lastly, high tolerances for the five predictors in the regression model showed that multicollinearity would not create interpretation issues for the results of the MRA.

Results

Relationships Between Intentions to Seek Help and Other Variables

As shown in Table 3, there was a significant and negative correlation between psychological distress and mental health professional help-seeking intentions for suicidal thoughts ($r=-0.24$) indicating the presence of help-negation in the current sample. Small positive significant correlations were evident between psychological distress and intentions to seek help from *no-one* for both suicidal thoughts ($r=0.18$) and personal emotional problems ($r=0.21$).

Help-seeking intentions for suicidal thoughts had significant small to moderate negative correlations with distress tolerance ($r=-0.16$) and self-harm ($r=-0.29$). As distress tolerance and self-harm increase, intentions to seek help from a mental health professional for suicidal thoughts decrease. Self-harm and social comparison had significant positive correlations with intentions to seek help from no-one; as self-harm and social comparison increase, intentions to seek help from no-one for suicidal thoughts and personal/emotional problems also increase.

A significant positive correlation was noted between perceived mental health in comparison to others and help-seeking intentions for suicidal thoughts. A more positive appraisal of one's mental health compared to others was associated with *greater* intentions to seek help from a mental health professional for suicidal thoughts ($r=0.36$). Consistent with this finding were significant negative correlations between mental health comparisons and intentions to seek help from no-one.

Hierarchical Multiple Regression Analysis (MRA)

On step 1 of the hierarchical MRA, gender and prior help-seeking accounted for 0% of the variance in mental health professional help-seeking intentions, $R^2=0.00$, F (2, 177) $=1.33$ $p=0.633$. On step 2, with levels of self-harm added, the model was significant and accounted for 9% of the variation in mental health professional help-seeking intentions, $R^2=0.09$, F (1, 176) $=17.50$, $p<0.001$. On step 3, the addition of psychological distress did not add significantly to the model, $R2=0.09$, F (1, 175) $=1.43$, $p=0.233$. Similarly, when distress tolerance was entered on step 4, no further significant increase was observed, $R^2=0.09$, F (1, 174) $=1.60$, $p=0.207$. Social comparison was entered on step 5 and did not add significantly to the model, $R^2=0.09$, F (1, 173) $=0.63$, $p=0.427$. When mental health comparison was entered on step 6, an incremental increase of 5% in R^2 was statistically significant, $R^2=0.14$, F (1, 172) $=10.60$, $p=0.001$. Of the five predictor variables entered on step 6, self-harm, prior help-seeking and mental health comparison (MHC) were significant predictors of mental health professional help-seeking intentions. Together, the five variables accounted for 14% of the variance in intentions to seek help from a mental health professional for suicidal thoughts. By Cohen's (1988) conventions, a combined effect of this magnitude can be considered 'small', $f^2=0.21$. Unstandardised (B) and standardised (β) regression coefficients and squared semi-partial correlations (sr^2) for each predictor variable on each step of the hierarchical MRA are reported in Table 4.

Discussion

The present study sought to examine the relations between self-harm, psychological distress, distress tolerance and mental health comparison and mental health professional help-seeking intentions for suicidal ideation. Our first hypothesis that more episodes of DSI

Table 3 Spearman's rank correlations between measures and intentions to seek help from a mental health professional ($N = 182$)

	Help-seeking intentions				1	2	3	4
	APD[a]	Suicidal thoughts[b]	No-one suicidal thoughts[c]	No-one PEP[d]				
1. Psychological distress[e]	−.14*	−.24**	.18**	.21**	–	–	–	—
2. Distress tolerance[f]	−.02	−.16*	−.10	−.06	−.52**	–	–	–
3. Social comparison[g]	−.07	−.10	.15*	.18**	.14*	−.18**	–	–
4. Self-harm[h]	−.14*	−.29**	.24**	.29**	.47**	−.31**	-.16*	–
5. Mental health comparison[i]	.10	.36**	−.25**	−.27**	−.45**	.41**	-.10	−.36**

*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed)

[a]GHSQ-APD, general help-seeking questionnaire—intentions to seek help from a mental health professional for anxiety, personal/emotional problem and depression. [b]GHSQ-ST, general help-seeking questionnaire—intentions to seek help from a mental health professional for suicidal thoughts. [c]GHSQ-N1, general help-seeking questionnaire—intentions to not seek help from anyone for suicidal thoughts. [d]GHSQ-N2, general help-seeking questionnaire—intentions to not seek help from anyone for a personal/emotional problem. [e]Psychological distress as measured by DASS-21, Depression anxiety and stress scale 21. [f]Distress tolerance as measured by the Distress Tolerance Scale. [g]Social comparison as measured by INCOM, Iowa-Netherlands comparison orientation scale. [h]Self-harm as measured by SHI, Self-harm inventory. [i]Comparison of mental health with other Australians, students and friends as measured by MHC, mental health comparison

Table 4 Unstandardised (*B*) and standardised (β) regression coefficients and squared semi-partial correlations (sr^2) for each predictor variable on each step of a hierarchical multiple regression predicting mental health professional help-seeking intentions for suicidal thoughts

Variable	*B [95% CI]*	*SE (B)*	β	sr^2	R^2	*F* for change in R^2
Step 1					.00	1.33
Gender	−.51 [−1.2, .17]	.35	.11	.01		
Prior HS[a]	−.13 [−.68, .41]	.28	−.04	.00		
Step 2					.09	17.50**
Gender	−.32 [−.98, .34]	.33	−.07	.00		
Prior HS	−.46 [−1.0, .08]	.28	−.13	.01		
Self-harm[b]	−.20 [−.24, −.08]	.04	−.31**	.08		
Step 3					.09	1.43
Gender	−.37 [−1.0, .29]	.34	−.08	.00		
Prior HS	−.52 [−1.1, .03]	.28	−.14	.02		
Self-harm	−.14 [−.22, −.05]	.04	−.27**	.05		
P Distress[c]	−.02 [−.04, .01]	.01	−.10	.01		
Step 4					.09	1.60
Gender	−.42 [1.0, .25]	.34	−.09	.02		
Prior HS	−.58 [−1.1, −.02]	.28	−.16*	.02		
Self-harm	−.13 [−.22, −.05]	.04	−.26**	.05		
P Distress	−.01 [−.04, .02]	.01	−.06	.00		
Distress tolerance[d]	.02 [−.01, .04]	.01	.11	.01		
Step 5					.09	.63
Gender	−.42 [−1.2, .22]	.34	−.09	.00		
Prior HS	−.57 [−1.1, −.02]	.28	−.16*	.02		
Self-harm	−.13 [−.22, −.05]	.04	−.26**	.05		
P Distress	−.01 [−.04, .02]	.01	−.05	.00		
Distress tolerance	.02 [−.01, .04]	.01	.10	.00		
Social comparison[e]	−.05 [.22, .84]	.02	−.06	.00		
Step 6					.14	10.60**
Gender	−.39 [−.1.0, .26] −.70	.33	−.09	.01		
Prior HS	[−1.2, −.15]	.28	−.19*	.03		
Self-harm	−.11 [−.20, −.03]	.04	−.22**	.03		
P Distress	.00 [−.02, .03]	.01	.03	.00		
Distress tolerance	.00 [−.02, .03]	.01	.03	.00		
Social comparison	−.02 [−.06, .02]	.02	−.07	.00		
Mental health comparison[f]	.20 [.08, .33]	.06	.28**	.05		

*$p < .05$; **$p < .01$. [a]Prior help-seeking. [b]Self-harm as measured by SHI, Self-harm inventory. [c]P Distress—psychological distress as measured by DASS-21, Depression, anxiety and stress scale 2. [d]Distress tolerance as measured by DTS, Distress Tolerance Scale, the distress tolerance scale. [e]Social comparison as measured by INCOM, Iowa-Netherlands comparison orientation scale. [f]Comparison of mental health with other Australians, students and friends as measured by MHC, mental health comparison

and higher psychological distress were associated with lower intentions to seek help from a mental health professional for suicidal thoughts was supported. Relatedly, greater DSI and psychological distress were also associated with an increase in intentions to not seek help from anyone for suicidal thoughts or personal emotional problems. These findings

are consistent with help-negation and these relationships likely reflect a significant risk for young people who experience DSI, suicidal thoughts and other forms of psychological distress.

As anticipated, distress tolerance was significantly inversely correlated with intentions to seek help from a mental health professional for suicidal thoughts although the relationship was small in magnitude ($r = -0.16$). Distress tolerance had a moderate significant relationship with psychological distress in the current study ($r = 0.52$). Those who perceive themselves to be more able to endure distress would be expected to be less likely to anticipate the need for professional. Furthermore, the ongoing presence of greater levels of distress may lead to an acceptance of this as an expected part of daily life and a resignation that it is to be simply endured. Even if one is distressed, the belief that this can be endured reduces the likelihood that functioning will be disrupted by the presence of negative affect, thus reducing the perceived need for intervention (Simons and Gaher, 2005).

The general propensity to make social comparisons was not significantly related to intentions to seek help from a mental health professional for suicidal thoughts ($r = -0.10$), yet it showed small significant correlations with intentions to not seek help from anyone for suicidal thoughts ($r = 0.15$) and personal/emotional problems ($r = 0.18$). That is, the more an individual tends to compare themselves with others, the more likely they are to state they would not seek help from anyone. This suggests that a predisposition to making normative comparisons is associated with lower intentions to seek help. When making a social evaluation, we are inclined to compare with those we judge to be similar, with the hope of establishing an alignment of opinion or action with others that facilitates improved social 'fit' (Crusius et al., 2022; Festinger, 1954). Arguably, those more inclined to compare with others may also be more sensitive to perceive social acceptance or departure from it. The COA specifies stigma as a key factor that may hamper the help-seeking process and may explain intentions to not seek help as an action to avoid the negative appraisal of others and the preservation of a sense of social integration (Biddle et al., 2007).

Contrary to our hypothesis, on the mental health-specific normative comparison measure, those who thought that their mental health was better in comparison to others indicated that they would be *more* likely to seek help from a mental health professional if they were experiencing suicidal thoughts ($r = 0.36$) and *less* likely to seek help from no-one ($r = -0.25$). Based on the COA (Biddle et al., 2007), we anticipated that if an individual perceived their mental health as worse than others, then that would operate as a signal of the 'realness' of the problem and would in turn result in problem recognition and a greater intention to seek help. However, the correlation suggests that the more an individual considers their mental health as worse than others, the less likely they are to seek help. It is unclear why this might be the case and the relationship appears akin to the somewhat paradoxical help-negation effect. If we view this relationship from the perspective that those who think they have better mental health than others are more likely to seek help, a possible explanation emerges. That is, those who view themselves as having better mental health are more inclined to say they would seek help in part due to recognising this would be a positive preventative health behaviour. This finding and the proposed explanation require testing through further research.

In the regression, the addition of self-harm into the model at step 2 accounted for significant variance in intentions consistent with help-negation. Higher levels of self-harm were associated with lower intentions to seek help. The addition of psychological distress, distress tolerance and social comparison at steps 3, 4 and 5 did not add significantly to the model and self-harm continued to be a significant predictor. However, at step 6, when mental health comparison was added, this accounted for an additional 5% of variance in

help-seeking intentions. Self-harm and prior help-seeking also remained significant predictors. Even when these and other variables are controlled, downward mental health comparisons account for a significant amount of the variability in intentions to seek help from a professional for suicidal thoughts.

Why might higher frequency of DSI be related to lower intentions to seek help? It has been established that DSI is motivated by a wide range of functions that often operate simultaneously, falling into categories of intrapersonal (self-regulating) or interpersonal (social) (Klonsky et al., 2015; Kraus et al., 2020; Suyemoto, 1998). The self-regulation functions are more prevalent and those concerning affect regulation are the most frequently reported (92–93% and 63–78%) (Taylor et al., 2017; Edmondson et al., 2016). It is possible that for participants in the current study who engaged in DSI, such behaviour is viewed as an effective means of managing negative affect, and thus, they perceive no need to seek help. Furthermore, those with higher levels of distress tolerance had significantly lower levels of self-harm ($r = -0.31$) suggesting that for some, distress tolerance may protect against the need to use self-harm behaviours to manage negative affect. DSI has been established as a short-term strategy for relief from painful affect, suicidal ideation and the urge to commit suicide (Kraus et al., 2020; Klonsky et al., 2015; Klonsky, 2009). The 'anti-suicide' model suggests that DSI operates as protection against suicide, functioning as a compromise or substitute act enlisted to express suicidality without risking death (Kraus et al., 2020; Suyemoto, 1998). Previous research has noted the positive association between the anti-suicide function of DSI and suicidal ideation in young people who self-injure ($d = 0.72$) and the potential for amelioration of these thoughts via self-injury, thus explaining the greater use of it with the presence of more frequent ideation (Victor et al., 2015). Similarly, for those in our study, it may be that DSI operates as an active coping mechanism which protects against suicidality and diminishes the perceived need for help for suicidal ideation. Other researchers have argued that those engaging in DSI to avoid or manage suicidal behaviour may be at a greater risk for such and demonstrate an increased likelihood of reporting lifetime suicide attempts than those without a DSI history (Brausch & Muehlenkamp, 2018; Burke et al., 2018). Whilst our study captured prior self-harm behaviour, prospective research is needed to clarify how more contemporaneous DSI behaviours are associated with affect regulation, distress tolerance and help-seeking intentions. As noted, another finding that requires further research relates to the somewhat counterintuitive mental health comparison relationship with intentions to seek help. Consistent with theory, mental health social comparison processes appear related to help-seeking intentions even when multiple other variables are controlled, but the reasoning behind these comparison processes remains unclear.

Our study is limited by our sample of young adults attending university and we acknowledge that they demonstrate a relatively low level of experience with self-harm (SHI scores $M = 3.12$); thus, findings may not generalise to clinical samples with more severe psychopathology. Nonetheless, the current sample did include participants who had a history of DSI (62.8%) and there is a high rate of DSI in university samples (38.9%, Cipriano et al., 2017) increasing the ecological validity of the study. Furthermore, the majority of the participants in the study were female (81%), again limiting our ability to generalise the results to a male population. Future research would benefit from sampling representatively from the population to minimise the possibility that relationships between factors are artefacts of drawing participants from a narrow subgroup (e.g. majority of female psychology students with potentially higher rates of psychological distress—Bernhardsdottir & Vilhjamsson, 2013). The cross-sectional nature of the research and reliance on self-report data meant that help-seeking could only be assessed through future intentions, rather than from behavioural

data, and also limits causal interpretation. The measure of self-injury used in the present study evaluated only the lifetime frequency of DSI, rather than immediate intention to engage in this behaviour. Longitudinal research perhaps using ecological momentary sampling methodology is required to better understand the degree that more contemporaneous DSI is associated with intentions to seek help and actual help-seeking behaviour. Lastly, we were unable to distinguish those who engaged in DSI without suicidal ideation/intent. Some participants with greater DSI may have had no suicidal thoughts or intentions which could have resulted in low help-seeking intentions (i.e. help-negation) due to DSI not being associated with suicidality and consequently not viewed as problematic.

This study identified that greater DSI history, less prior help-seeking and mental health comparisons were predictors of lower intentions to seek help from a mental health professional for suicidal thoughts. The worse participants perceived their mental health to be in comparison to others, the less they had sought help previously, and a higher frequency of self-injurious behaviours was associated with lower help-seeking intentions for suicidal thoughts. It could be speculated that the functions of DSI to regulate negative affect or as a temporary anti-suicide gesture may for some individuals be perceived as 'working' or effective coping strategies. Thus, they endorse lower intentions to seek help for suicidal ideation. This hypothesis needs to be tested and prospective longitudinal studies are required to replicate and extend our findings by adding a measure of functions of DSI.

Funding Open Access funding enabled and organized by CAUL and its Member Institutions

Data Availability Data are available from the first author upon reasonable request.

References

Berkowitz, A.D. (2004). An overview of the social norms approach. (2004). In: Lederman, L. & Stewart, L. (Eds), *Changing the culture of college drinking* (pp. 193 – 214). Hampton Press.

Bernhardsdottir, J., & Vilhjamsson, R. (2013). Psychological distress among female university students and their need for mental health services. *Journal of Psychiatry and Mental Health Nursing, 20*(8), 672–680. https://doi.org/10.1111/jpm.12002

Biddle, L., Donovan, J., Sharp, D., & Gunnell, D. (2007). Explaining non-help seeking amongst young adults with mental distress: A dynamic interpretive model of illness behaviour. *Sociology of Health & Illness, 29*(7), 983–1002. https://doi.org/10.1111/j.1467-9566.2007.01030.x

Brausch, A. M., & Muehlenkamp, J. J. (2018). Perceived effectiveness of NSSI in achieving functions on severity and suicide risk. *Psychiatry Research, 265*, 144–150. https://doi.org/10.1016/j.psychres.2018.04.038

Burke, T. A., Jacobucci, R., Ammerman, B. A., Piccirillo, M., McCloskey, M. S., Heimberg, R. G., & Alloy, L. B. (2018). Identifying the relative importance of non-suicidal self-injury features in classifying suicidal ideation, plans, and behavior using exploratory data mining. *Psychiatry Research, 262*, 175–183. https://doi.org/10.1016/j.psychres.2018.01.045

Crusius, J., Corcoran, K. & Mussweiler, T. (2022). Social comparison: A review of theory, research, and applications. In D. Chadee (Ed.), *Theories of social psychology* (pp. 165 – 187) (2 ed.). Wiley.

Deane, F. P., Wilson, C., & Ciarrochi, J. (2001). Suicidal ideation and help- negation: Not just hopelessness or prior help. *Journal of Clinical Psychology, 57*, 901–914. https://doi.org/10.1002/jclp.1058

Edmondson, A. J., Brennan, C. A., & House, A. O. (2016). Non-suicidal reasons for self-harm: A systematic review of self-reported accounts. *Journal of Affective Disorders, 191*, 109–117. https://doi.org/10.1016/j.jad.2015.11.043

Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*(2), 117–140. https://doi.org/10.1177/001872675400700202

Frost, M., Casey, L. M., & O'Gorman, J. (2017). Self-injury in young people and the help-negation effect. *Psychiatry Research, 250*, 291–296. https://doi.org/10.1016/j.psychres.2016.12.022

Gibbons, F. X., & Buunk, B. P. (1999). Individual differences in social comparison: The development of a scale of social comparison orientation. *Journal of Personality and Social Psychology, 76*(1), 129–142. https://doi.org/10.1037/0022-3514.76.1.129

Hamza, C. A., Stewart, S. L., & Willoughby, T. (2012). Examining the link between non-suicidal self-injury and suicidal behavior: A review of the literature and an integrated model. *Clinical Psychology Review, 32*, 482–495. https://doi.org/10.1016/j.cpr.2012.05.003

Han, J., Batterham, P. J., Calear, A. L., & Randall, R. (2018). Factors influencing professional help-seeking for suicidality: A systematic review. *Crisis, 39*(3), 175–196. https://doi.org/10.1027/0227-5910/a000485

Henry, J. D., & Crawford, J. R. (2005). The 21-item version of the Depression Anxiety Stress Scales (DASS–21): Normative data and psychometric evaluation in a large non-clinical sample. *British Journal of Clinical Psychology, 44*(2), 227–239. https://doi.org/10.1348/014466505X29657

Joiner, T. E. (2005). *Why people die by suicide*. Harvard University Press.

Jorm, A. F., Wright, A., & Morgan, A. J. (2007). Beliefs about appropriate first aid for young people with mental disorders: Findings from an Australian national survey of youth and parents. *Early Intervention in Psychiatry, 1*(1), 61–70. https://doi.org/10.1111/j.1751-7893.2007.00012.x

Klonsky, D. E. (2009). The functions of self-injury in young adults who cut themselves: Clarifying the evidence for affect regulation. *Psychiatry Research, 166*(1–2), 260–268. https://doi.org/10.1016/j.psychres.2008.02.008

Klonsky, E.D., Glenn, C.R., Styer, D.M., Olino, T. M. & Washburn, J. J. (2015). The functions of non-suicidal self-injury: Converging evidence for a two-factor structure. *Child Adolescent Psychiatry and Mental Health, 9*(44). https://doi.org/10.1186/s13034-015-0073-4

Kraus, L., Schmid, M., & In-Albon, T. (2020). Anti-suicide function of non-suicidal self-injury in female inpatient adolescents. *Frontiers in Psychiatry, 11*(490). https://doi.org/10.3389/fpsyt.2020.00490

Latimer, S., Covic, T., Cumming, S. R., & Tennant, A. (2009). Psychometric analysis of the self-harm inventory using rasch modelling. *BMC Psychiatry, 53*(9), 89–98. https://doi.org/10.1186/1471-244X-9-53

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy, 33*(3), 335–343. https://doi.org/10.1016/0005-7967(94)00075-U

Meheli, S., & Lewis, S. P. (2022). Support seeking in the context of self-injury recovery: Perspectives from individuals with lived experience. *The Journal of Nervous and Mental Disease, 210*(7), 547–556. https://doi.org/10.1097/NMD.0000000000001481

Michelmore, L., & Hindley, P. (2012). Help-seeking for suicidal thoughts and self-harm in young people: A systematic review. *Suicide and Life Threatening Behaviour, 42*(5), 507–524. https://doi.org/10.1111/j.1943-278X.2012.00108.x

Mojtabai, R. (2008). Social comparison of distress and mental health help-seeking in the US general population. *Social Science and Medicine, 67*(12), 1944–1950. https://doi.org/10.1016/j.socscimed.2008.09.059

Nock, M. K. (2009). Why do people hurt themselves?: New insights into the nature and functions of self-injury. *Current Directions in Psychological Science, 18*(2), 78–83. https://doi.org/10.1111/j.1467-8721.2009.01613.x

Olfson, M., Wall, M., Wang, S., Crystal, S., Gerhard, T., & Blanco, C. (2017). Suicide following deliberate self-harm. *American Journal of Psychiatry, 174*(8), 765–774. https://doi.org/10.1176/appi.ajp.2017.16111288

Rickwood, D. J., Deane, F., Wilson, C., & Ciarrochi, J. (2005). Young people's help-seeking for mental health problems. *Australian e-Journal for the Advancement of Mental Health, 4*(3), 1–34. https://doi.org/10.5172/jamh.4.3.218

Rickwood, D. J., Deane, F. P., & Wilson, C. J. (2007). When and how do young people seek professional help for mental health problems? *Medical Journal of Australia, 187*(7 Suppl), S35–S39. https://doi.org/10.5694/j.1326-5377.2007.tb01334.x

Rickwood, D. J. (2017). Helping young people get help for mental health problems. In. R. Manocha (Ed.), *Growing Happy Healthy Young Minds.* Hachette, Australia.

Sansone, R. A., Wiederman, M. W., & Sansone, L. A. (1998). The self-harm inventory (SHI): Development of a scale for identifying self-destructive behaviours. *Journal of Clinical Psychology, 54*(7), 973–983. https://doi.org/10.1002/(SICI)1097-4679(199811)54:7%3c973::AID-JCLP11%3e3.0.CO;2-H

Simons, J. S., & Gaher, R. M. (2005). The distress tolerance scale: Development and validation of a self-report measure. *Motivation and Emotion, 29*(2), 83–102. https://doi.org/10.1007/s11031-005-7955-3

Suyemoto, K. L. (1998). The functions of self-mutilation. *Clinical Psychology Review, 18*(5), 531–554. https://doi.org/10.1016/s0272-7358(97)00105-0

Taylor, P. J., Jomar, K., Dhingra, K., Forrester, R., Shahmalak, U., & Dickson, J. M. (2017). A meta-analysis of the prevalence of different functions of non-suicidal self-injury. *Journal of Affective Disorders, 227*, 759–769. https://doi.org/10.1016/j.jad.2017.11.073

Turner, B. L, Deane, F. P., & Miller, L. M. (2021). A threshold task to determine help-seeking for deliberate self-injury: A proof of concept study. Journal of Psychopathology and Behavioral Assessmenthttps://doi.org/10.1007/s10862-021-09911-1

Victor, S. E., Muehlenkamp, J. J., Hayes, N. A., Lengel, G. J., Styer, D. M., & Washburn, J. J. (2018). Characterizing gender differences in nonsuicidal self-injury: Evidence from a large clinical sample of adolescents and adults. *Comprehensive Psychiatry, 82*, 53–60. https://doi.org/10.1016/j.comppsych.2018.01.009

Victor, S. E., Styer, D. & Washburn, J. J. (2015). Characteristics of non-suicidal self-injury associated with suicidal ideation: Evidence from a clinical sample of youth. *Child and Adolescent Psychiatry and Mental Health, 9*(20). https://doi.org/10.1186/s13034-015-0053-8

Wilson, C. J. (2010). General psychological distress symptoms and help-avoidance in young Australians. *Advances in Mental Health, 9*(1), 63–72. https://doi.org/10.5172/jamh.9.1.63

Wilson, C. J., & Deane, F. P. (2010). Help-negation and suicidal ideation: The role of depression, anxiety and hopelessness. *The Journal of Youth and Adolescence, 39*(3), 291–305. https://doi.org/10.1007/s10964-009-9487-8

Wilson, C. J., Deane, F. P., & Ciarrochi, J. (2005a). Can hopelessness and adolescents' beliefs about seeking help account for help negation? *Journal of Clinical Psychology, 61*, 1525–1539. https://doi.org/10.1002/jclp.20206

Wilson, C. J., Deane, F. P., Ciarrochi, J., & Rickwood, D. (2005b). Measuring help-seeking intentions: Properties of the general help-seeking questionnaire. *Canadian Journal of Counselling, 39*(1), 15–28.

Wilson, C. J., Deane, F. P., Marshall, K. L., & Dalley, A. (2010). Adolescents' suicidal thinking and reluctance to consult practitioners. *Journal of Youth and Adolescence, 39*, 343–356. https://doi.org/10.1007/s10964-0099436-6

Wilson, C. J., & Deane, F. P. (2012). *Help-negation* (Ch. 140). In R. J. R. Levesque (Ed), Encyclopedia of adolescence, 1st Edition, Part 8 (pp. 1281–1288). New York, NY: Springer-Verlag New York Inc.