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**Mental Health of Irish Students: Self-Criticism as A Complete Mediator in Mental Health Attitudes and Caregiver Identity**

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## **Mental Health of Irish Students: Self-Criticism as A Complete Mediator in Mental Health Attitudes and Caregiver Identity**

### **Abstract**

Mental health is a concern in the Republic of Ireland, and in particular mental health of higher education students is challenging. Further, their poor mental health may be negatively impacted by their negative mental health attitudes and caregiver identity, which can yield high self-criticism and low self-reassurance. Accordingly, this study aimed to (i) elucidate the relationships among these five constructs, and (ii) assess the impact of self-criticism and self-reassurance in the relationship (a) between mental health attitudes and mental health, and (b) between caregiver identity and mental health. One-hundred twenty-nine Irish undergraduate students completed self-report measures regarding these constructs. Correlation and path analyses were conducted. Overall all variables were related to each other, in particular family-related shame subscales were strongly related to mental health problems. In path analysis, self-criticism completely mediated the relationship between mental health attitudes and mental health, while self-reassurance did not. Likewise, self-criticism also completely mediated the relationship between caregiver identity and mental health, while self-reassurance did not. The findings suggest the importance of self-criticism to their mental health. While current literature highlights the importance of mental health attitudes such as stigma and caregiver identity such as low self-awareness, our results indicated that it was their self-criticism that predicted poor mental health. Their mental health may be more effectively improved by targeting self-criticism. Compassion training, peer-support groups, and reframing were recommended to counter self-

criticism. Our findings will help educators and researchers to identify an alternative and effective means to improve mental health in Irish students.

*Keywords: Irish students, mental health, shame about mental health, self-criticism, caregiver identity*

## Introduction

Mental health is one of the global challenges we face today. In Europe, one in six people had some type of mental health problem, amounting to 84 million Europeans in 2016, and deaths caused by mental health problems (including suicide) counted over 84,000 in 2015 (Organization for Economic Cooperation and Development/European Union [OECD/EU], 2018). Costs of mental health problems exceed 4% of GDP on average, totalling €600 billion across Europe (OECD/EU, 2018). Ireland was reported to have the most challenging mental health status in Europe: About 20% of the Irish suffered from a mental health problem, including anxiety, bipolar, schizophrenia, depression, or substance abuse, costing its economy €8.2 billion annually (OECD/EU, 2018). In particular, Irish higher education students suffer from poor mental health: more than half of Irish students felt their mental health problems negatively impacted on their academic performance (Kerrigan, 2018). Approximately 40% had mild to very severe depression or anxiety; 50% had suicidal ideation; and 20% had engaged in self-harm (Dooley & Fitzgerald, 2012). These figures delineate poor mental health of Irish students. Further, considering that (i) 70% of health problems (including fatal ones) in the young are derived from mental health difficulties (McGorry, 2005), and (ii) 75% of life-long mental health difficulties start to develop between the ages of 15 and 25 (Hickie, 2004; Kessler et al, 2005; Kim-Cohen et al, 2003), it is worthwhile to explore mental health of students in Irish higher education.

One student group that suffers from poor mental health is social care students, who aspire to work with the most vulnerable populations in society. Professional practitioners offer psychosocial care, protection, and advocacy for vulnerable individuals and groups (Social Care Workers Registration Board, 2019). While the importance of this profession has been more recognised recently (Gill, 2017) it is still in its infancy regarding researching mental health

conditions of social care students. Social care education programmes can be mentally challenging to many students (Kotera, Green & Sheffield, 2019). More than a third of social care students reported serious depressive symptoms (Horton et al., 2009). Forty percent of students in this subject have suicidal thoughts in their lives, and 4% reported they had them recently (Horton et al., 2009). Partly because they are trained to be attuned with service users' suffering, they can be influenced by others' suffering: after a natural disaster, half of them had clinical levels of depression, one-fifth used substances, and a quarter felt the disaster triggered their past traumas (Lemieux et al., 2010). Despite these findings for social care students, mental health of Irish social care students has not been focusedly investigated to date.

### ***Shame for Mental Health Problems***

Despite the serious nature of mental health problems, Irish students' attitudes towards mental health problems are negative. Three-quarters of Irish students reported fear of having mental health problems (Union of Students in Ireland, 2017). A study analysed focus group sessions attended by 33 Irish students highlighted shame and stigma about mental health problems (Karwig, Chambers & Murphy, 2015). Negative attitudes towards mental health problems can leave their symptoms untreated, leading to poor clinical outcomes. Shame and stigma were a major reason for help avoidance (Byrne, 2000; Corrigan et al., 2003; Eisenberg et al., 2007; Gonzalez et al., 2005; Nordt et al., 2006; Ting, 2011), which was related to depression in 700 professional social workers in America (Siebert, 2004). Stigmatised attitudes perceive mental health sufferers as weak, incompetent, and unable to take care of themselves, which could lead to discriminatory behaviours towards them such as social isolation (Corrigan, Edwards, Green, Diwan, & Penn, 2001; Link, Yang, Phelan, & Collins, 2004). At the same time, negative mental health stigma can be internalised causing feelings of shame (Antonak & Livneh, 2000;

Byrne, 2000). Particularly social care students are afraid to seek help, as they aspire to help people with mental health problems. Their strong caregiver identity was associated with poor mental health and high mental health shame (Kotera, Green & Sheffield, 2019; Kotera, Green & Van Gordon, 2018; Ting, 2011). Despite these relationships, mental health attitudes and caregiver identity of Irish social care students have not been explored in-depth to date.

The present study focused on shame instead of stigma, because shame is strongly related to professional identity and mental health of healthcare students (Kotera, Green & Sheffield, 2019). Shame relates to a sense of inadequacy, compared with some internal or external standard (Tangney, 1990), whereas stigma is an undesirable social mark causing isolation (Lewis, 1999). Therefore, stigma can lead to a sense of shame, and shame can have other sources than stigma (Corrigan, Duss & Perlick, 2014). There was no significant relationship between stigma and help-seeking (Golberstein, Eisenberg & Gollust, 2009), suggesting that the participating students were aware of stigma yet still received help; some students were not worried if they would become isolated from their close friends by receiving mental health help because they did not feel any shame. Shame is a potent affect of inadequacy, and particularly relevant to caring profession practitioners and trainees (Frost, 2016). Shame can lead to self-doubt, causing to hide, escape, and repair of one's self-image (de Hooge, Zeelenberg & Breugelmans, 2010). Shame is a form of pervasive self-devaluations (Benetti-McQuoid & Bursik 2005), involving fear of others' judgement on them (Agrawal & Duhachek, 2010), and self-criticism for their own identity (Lewis, 1971; Tangney & Dearing, 2002). This feeling of shame is salient in social care work (as seen in the words 'social worker shame' noted by Gibson, 2014, p.417), thus worthwhile to explore in Irish social care students.

### ***Caregiver Identity in Social Care Students***

Because shame was related to one's identity, this study explored caregiver identity of Irish social care students: how they perceive themselves as a caregiver. A strong sense of caregiver identity, to be seen as someone who offers care for those in need was related to poor mental health and negative mental health attitude, essentially high shame in UK social care students (Kotera, Green & Sheffield, 2019). These significant relationships may suggest that social care students are constantly compared with their professional standard to be a social care worker, which reinforces a notion that they must care for others, making it more difficult for them to seek help, leading to poor mental health. Indeed, creating a professional identity that focuses on helping others is important, however asking for help does not mean they have failed as a caregiver. Skilled caring practitioners have high self-awareness and implement self-care effectively. Self-care is essential for social care workers, which is enabled by creating a sound professional identity (Dalphon, 2019). In general, students in healthcare subjects are intrinsically motivated to help others (Kotera, Green & Van Gordon, 2019), however it can cause burnout if those students feel that they must care for others all the time (Dalphon, 2019). As reported in work-life balance research, having balanced identities in one's life is crucial to one's mental health (Kotera, Green & Sheffield, 2019). Relationship between caregiver identity and mental health in Irish social care work students has not been explored in depth to date, suggesting a need for research.

### ***Self-Criticism and Self-Reassurance***

Lastly, self-criticism and self-reassurance were evaluated in this study, as these internal constructs were significantly related to mental health and mental health attitudes (Gilbert & Procter, 2006; Kotera, Gilbert, Asano, Ishimura & Sheffield, 2018). As described before, shame is a potent affect that activates our self-criticism, leading to poor mental health. Although

developmentally we have developed self-criticism for self-correction (to be accepted by parental figures and society), prolonged self-criticism could harm our mental health, and ironically disable to receive acceptance and love from others (Gilbert, 2010). On the other hand, self-reassurance -equally being supportive of and caring for oneself, can reduce shame and improve mental health (Kotera et al., 2018). Social care students tend to be self-critical as they must meet the professional standards to practise their professions, which sets them up to constantly compare themselves with these standards (Kotera, Green & Sheffield, 2019). While self-criticism and self-reassurance are important to mental health of social care students, these constructs have not been appraised in Irish social care students.

Given the internal nature of self-criticism and self-reassurance, this study aimed to test two models: self-criticism and self-reassurance would mediate the relationship (i) between mental health attitudes and mental health (Figure 1), and (ii) between caregiver identity and mental health (Figure 2).

In summary, we aimed to address 1) how mental health would be related to mental health attitudes, self-criticism/-reassurance, and caregiver identity, 2) whether self-criticism/-reassurance would mediate the relationship between mental health attitudes and mental health, and 3) whether self-criticism/-reassurance would mediate the relationship between caregiver identity and mental health in Irish social care students. Findings from these aims can indicate relevant constructs to their mental health, and help identify effective solutions for challenging mental health in Irish social care students.

Figure 1. *Self-criticism and self-reassurance mediating the relationship between mental health attitudes and mental health*

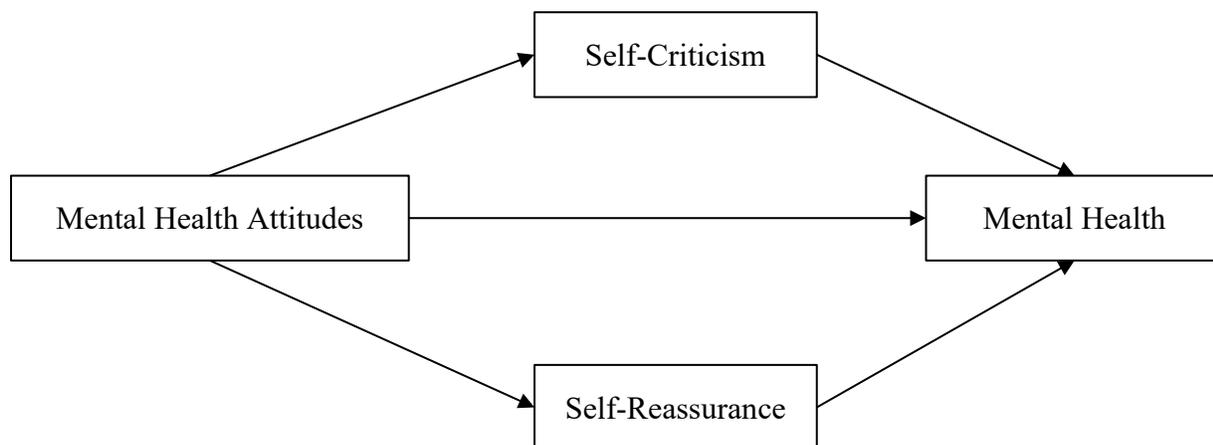
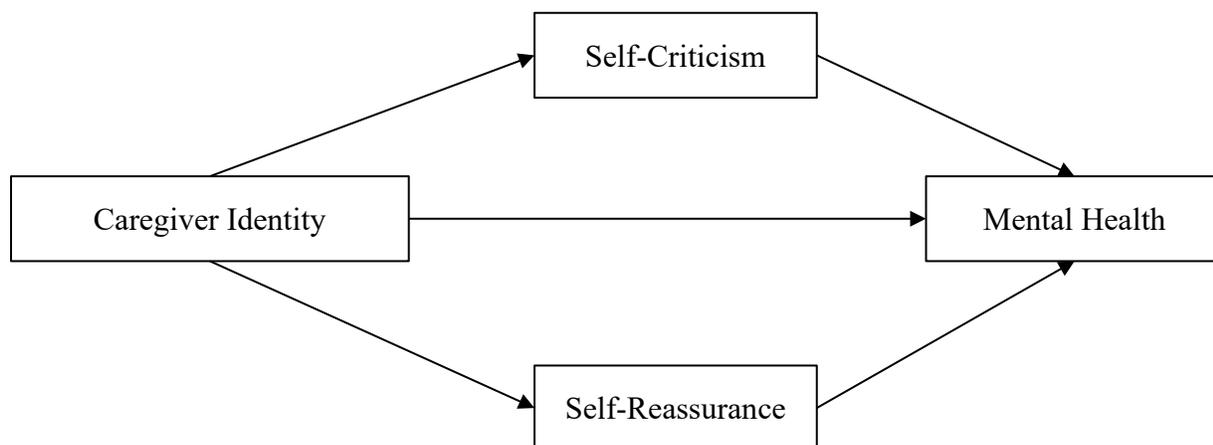


Figure 2. *Self-criticism and self-reassurance mediating the relationship between caregiver identity and mental health*



## Method

### *Participants*

Participants had to be aged 18 years or older and studying in a social care programme at an Irish higher education institute (HEI). In total 140 students were approached across two campuses, of which 129 undergraduate students (109 females, 16 males, 4 did not answer;  $M_{\text{age}}=25.12$ ,  $SD_{\text{age}}=7.68$ ,  $RNG_{\text{age}}=18-47$  years old) agreed to participate and completed self-report measures about mental health, mental health attitudes, caregiver identity, self-criticism and self-reassurance. The gender balance and age in our sample was almost identical to the general social care student demography (86% female, 28 years old combining both undergraduates and postgraduates; Skills for Care, 2016).

### *Instruments*

*Mental health* was evaluated using the Depression Anxiety and Stress Scale (DASS21), a shortened version of the original DASS42 (Lovibond & Lovibond, 1995). The 21 items in DASS21 is categorised into three subscales; depression (e.g. 'I couldn't seem to experience any positive feeling at all'), anxiety (e.g. 'I was worried about situations in which I might panic and make a fool of myself') and stress (e.g. 'I tended to over-react to situations'). The subscales of DASS21 have good internal consistency ( $\alpha=.94$  for depression,  $\alpha=.87$  for anxiety, and  $\alpha=.91$  for stress; Antony et al., 1998).

Attitudes Towards Mental Health Problems (ATMHP) was used to measure their *mental health attitudes*. ATMHP consists of 35 items divided into four sections: i) community and family attitudes, ii) community and family external shame, iii) internal shame, and iv) family and self reflected shame. The first section evaluates how their community and family perceive mental health problems (community and family attitudes). The second section considers their perception

of how their community and family would see *them* if they had a mental health problem, respectively (community and family external shame). Internal shame is appraised in the third section: how they perceive *themselves* if they had a mental health problem. Finally, the fourth section evaluates how their family would be perceived if they had a mental health problem (family reflected shame), and how worried they would be if their close relative had a mental health problem (self reflected shame). All of the subscales had good internal consistency ( $\alpha=.85$  to  $.97$ ; Gilbert et al., 2007).

*Caregiver identity* was assessed using the Role Identity Scale (RIS), an eight-item self-report measure, considering how they see themselves as a caregiver, and how they recognise others' view of them as a caregiver (Siebert & Siebert, 2005, 2007). Participants score how much they agree or disagree to each item (e.g. 'Friends frequently turn to me when they have problems or concerns') on a five-point Likert scale. A higher total score means a stronger caregiving identity. The internal consistency is high ( $\alpha=.78$ ; Siebert & Siebert, 2005).

Lastly, the Forms of Self-Criticising/Attacking & Self-Reassuring Scale (FSCSR; Gilbert et al., 2004) was used to assess *self-criticism* and *self-reassurance*, namely how participants treat themselves internally in difficult times. The 22 five-point Likert scale items evaluate two types of self-criticism (inadequate-self and hated-self) and self-reassurance (reassured-self). Nine items consider inadequate-self, that is a sense of personal inadequacy (e.g. 'I find it difficult to control my anger and frustration at myself'). Five items concern hated-self, namely a desire to hurt or persecute the self (e.g. 'I have a sense of disgust with myself'). The rest of eight items are related to reassured-self, meaning a sense of self-support or compassion for the self (e.g. 'I can still feel lovable and acceptable'). FSCSR subscales had good internal consistency ( $\alpha=.90$  for inadequate-self,  $\alpha=.86$  for hated-self, and  $\alpha=.86$  for reassured-self).

## ***Procedure***

Once consented to take part in the study, the participants received links to the online scales. The debrief was sent to them, after completion of the scales. The study materials were given to students by their lecturers (not the researchers) to eliminate their response biases. Should students experience distress from responding to the scales, available mental health services were informed (inside and outside the HEI to consider their mental health shame). The HEI research ethics committee approved this study.

First, the collected data were screened for outliers and the assumptions of parametric tests. Second, correlation analysis was conducted to appraise relationships among these variables. Third, path analyses were conducted to examine whether self-criticism and self-reassurance would mediate the relationship (i) between mental health attitudes and mental health and (ii) between caregiver identity and mental health. Analyses were conducted using IBM SPSS version 24 and Process macro version 3.1 (Hayes, 2017).

## **Results**

There was no outliers. All the variables demonstrated good internal consistency ( $\alpha \geq .77$ ). All the variables except for inadequate-self and reassured-self were not normally distributed (Shapiro-Wilk  $p < .05$ ) so were square-root transformed. Pearson's correlations were used to evaluate the relationships between these variables.

*Table 1. Descriptive statistics and correlations between mental health attitudes, mental health, self-criticism, self-reassurance, and caregiver identity among 129 Irish social care students.*

		M	SD	$\alpha$	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Community Attitudes	5.56	2.98	.82	-	.48**	.66**	.41**	.19*	.33**	.10	.21*	.13	.21*	.25**	.17*	.24**	.06
2	Family Attitudes	2.55	2.94	.87		-	.28**	.47**	.003	.16	.18*	.31**	.24**	.30**	.17	.31**	-.12	-.12
3	Community External Shame	7.14	4.43	.94			-	.46**	.32**	.48**	.12	.11	.06	.17	.21*	.12	.17	.09
4	Family External Shame	2.67	3.99	.94				-	.18*	.36**	.15	.21*	.18*	.23**	.29**	.29**	-.13	-.03
5	Internal Shame	7.90	4.25	.91					-	.33**	.29**	.27**	.12	.20*	.29**	.35**	-.14	.16
6	Family-Reflected Shame	7.69	4.96	.86						-	.33**	.26**	.18*	.28**	.31**	.25**	.02	.16
7	Self-Reflected Shame	5.62	5.16	.96							-	.38**	.28**	.28**	.21*	.28**	-.18*	.03
8	Depression	6.85	5.79	.92								-	.77**	.77**	.62**	.66**	-.37**	.19*
9	Anxiety	7.72	6.02	.90									-	.77**	.61**	.59**	-.32**	.25**
10	Stress	9.15	5.67	.90										-	.60**	.52**	-.21*	.31**
11	Inadequate-Self	20.43	7.99	.88											-	.70**	-.25**	.37**
12	Hated-Self	5.15	4.96	.85												-	-.50**	.19*
13	Reassured-Self	19.15	6.52	.87													-	.06
14	Caregiver Identity	31.53	5.72	.77														-

\* $p < .05$ , \*\* $p < .01$

Overall, mental health attitudes, mental health, self-criticism, and self-reassurance were related to each other (Aim 1). Particularly, family-related subscales in the mental health attitudes scale (family attitudes, family external shame, and two types of reflected shame) were strongly related to mental health problems. Self-criticism was more strongly associated with mental health shame and mental health problems than self-reassurance. Caregiver identity was related to mental health problems and self-criticism, but not with mental health attitudes and self-reassurance.

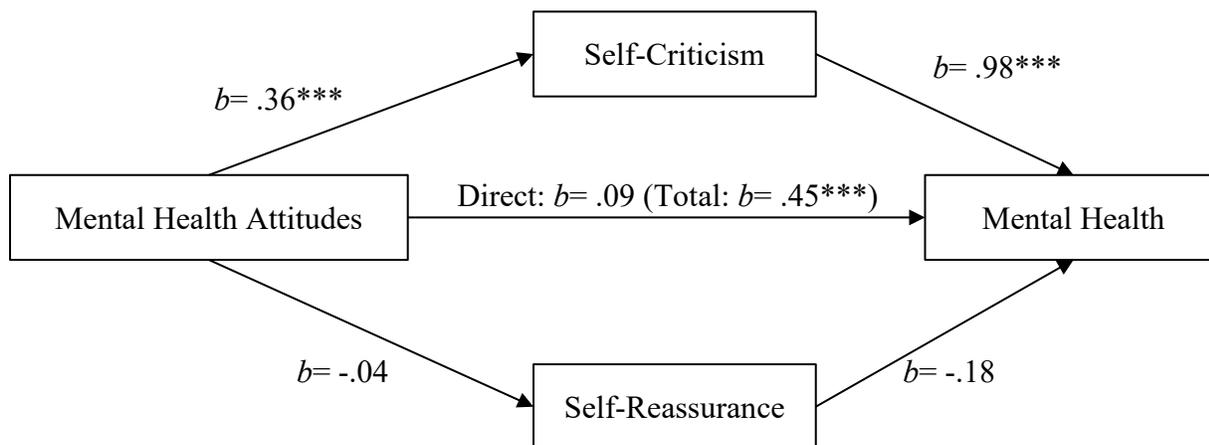
### ***Path Analyses***

To evaluate whether self-criticism and self-reassurance would mediate the relationship between mental health attitudes and mental health (Figure 1), path analyses were conducted, using model 4 (parallel mediation model; Hayes, 2017). Mental health attitudes were calculated by totalling the subscale scores of the ATMHP scale (Gilbert et al., 2007), the total score of DASS21 was used to indicate their mental health (Lovibond & Lovibond, 1995), and self-criticism was calculated by combining the scores in inadequate-self and hated-self (Kotera et al., 2018).

While there was no significant indirect effect through self-reassurance,  $b=.01$ , BCa CI  $[-.01, .04]$ , there was a significant indirect effect of mental health attitudes on mental health through self-criticism,  $b=.35$ , BCa CI  $[.21, .50]$ , which explained 42% of the variance in mental health, and accounted for 78% of the total effect, indicating a large effect. The total effect of mental health attitudes on mental health, including self-criticism and self-reassurance, was significant,  $b=.45$ ,  $t(129)=4.52$ ,  $p<.001$ . The direct effect of mental health attitudes on mental health, controlling for self-criticism and self-reassurance, was not significant,  $b=.09$ ,  $t(127)=1.06$ ,  $p=.29$ , implying that mental health attitudes did not directly predict the variance in

mental health. Self-criticism completely mediated the relationship between mental health attitudes and mental health (Figure 3; Aim 2).

Figure 3. Parallel mediation model: Self-criticism fully mediated the relationship between mental health attitudes and mental health.



The confidence interval for the indirect effect is a BCa bootstrapped CI based on 5000 samples.

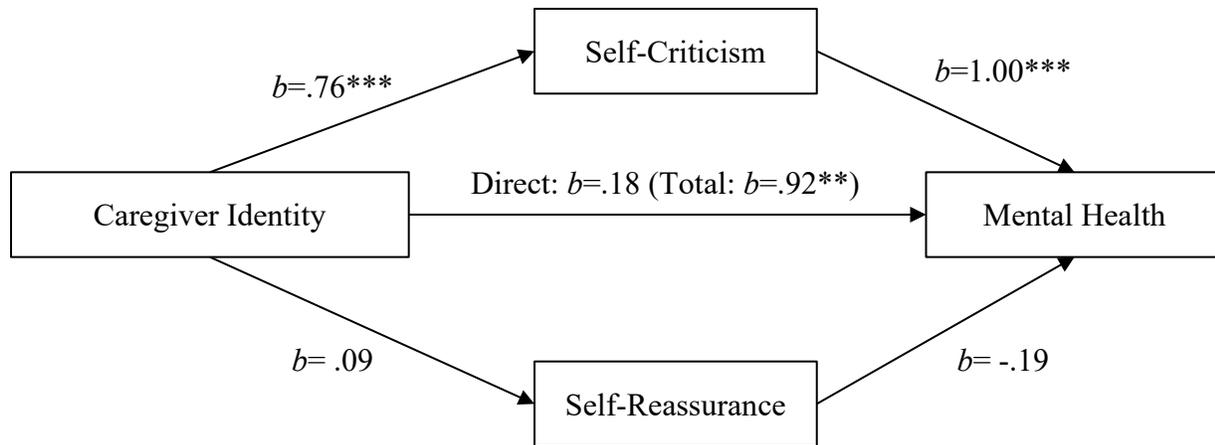
\*\*\*  $p < .001$

Next, the model illustrated in Figure 2 was tested, to determine whether self-criticism and self-reassurance would mediate the relationship between caregiver identity and mental health.

As with the mental health attitudes, there was no significant indirect effect of caregiver identity on mental health through self-reassurance,  $b = 1.02$ , BCa CI  $[-.13, .08]$ . There was a significant indirect effect of caregiver identity on mental health through self-criticism,  $b = .76$ , BCa CI  $[.38, 1.28]$ , which explained 39% of the variance in mental health, and accounted for 73% of the total effect, indicating a large effect. The total effect of caregiver identity on mental health, including self-criticism and self-reassurance, was significant,  $b = .92$ ,  $t(129) = 3.26$ ,  $p = .0014$ . The direct effect of caregiver identity on mental health, controlling for self-criticism and self-reassurance, was not significant,  $b = .18$ ,  $t(127) = .80$ ,  $p = .42$ , implying that caregiver

identity did not directly predict the variance in mental health. Self-criticism again completely mediated the relationship between caregiver identity and mental health (Figure 4; Aim 3).

Figure 4. Parallel mediation model: Self-criticism fully mediated the relationship between mental health attitudes and mental health.



The confidence interval for the indirect effect is a BCa bootstrapped CI based on 5000 samples.

\*\*\*  $p < .001$ , \*\*  $p < .01$

## Discussion

This study explored the relationship between mental health attitudes, mental health, caregiver identity, self-criticism, and self-reassurance among Irish social care work students. Overall, all the variables were related with each other, and self-criticism completely mediated the relationship between mental health attitudes and mental health, and between caregiver identity and mental health.

In our correlation analysis, family-related subscales (family attitudes, family external shame, and two types of reflected shame) were more strongly related with mental health problems than the other subscales. How their family perceives and treats mental health was

important to their mental health. This suggests that enhancing mental health awareness in their family may be an alternative approach for improving their mental health. Indeed, medical students' family environment was significantly related to their mental health (Yu et al., 2015). This may also mean that a good understanding of mental health problems can help: mental health problems are not all genetic. For example, heritability of depression is just about 35% (Matsumoto, Kunimoto, & Ozaki, 2013), and aetiology of mental health problems include a wide range of potential causes not only familial factors but also other environmental or psychological factors. A good understanding of mental health can help students reduce their negative attitudes and shame about mental health problems.

One of the primary contributions of this study would be that, as revealed in our path analyses, self-criticism negatively played an important role in their mental health. While mental health attitudes and caregiver identity were significantly related to mental health, it was self-criticism that completely mediated the relationships (as indicated by non-significant direct effects from mental health attitudes to mental health in Figure 3 and from caregiver identity to mental health in Figure 4). It was not mental health attitudes nor caregiver identity that predicted mental health problems; it was self-criticism that predicted mental health problems. Contrarily, self-reassurance did not mediate these relationships. Our results suggest that negative mental health attitudes and strong caregiver identity activate self-criticism, which exacerbates mental health. Irish social care students may feel strong shame about having a mental health problem, which can stimulate their self-criticism. Likewise, their strong identity as a caregiver can enhance their self-criticism: for instance, students may believe that 'I should give care to others, not receive it'. Heightened self-criticism can negatively impact on their mental health (Gilbert, 2010). Reducing self-criticism may be an alternative and effective approach for mental health of

Irish social care students, especially considering their negative attitudes towards mental health problems (students may not engage with mental health training). Cultivating compassionate mind has been reported effective in reducing self-criticism (Toole & Craighead, 2016). By practicing their compassionate mind, students can activate their soothing mind that is related to the parasympathetic system, reducing their self-criticism (Gilbert, 2010). Also, experiencing compassion can enhance self-compassion - being kind and understanding towards oneself in difficult times (Neff, 2003). Self-compassion was identified as the key predictor of good mental health in students in various disciplines, including social care (Kotera, Conway & Van Gordon, 2019; Kotera, Green & Sheffield, 2019; Kotera, Green & Van Gordon, 2019). Compassion-based training can enhance students' self-compassion, and reduce their self-criticism.

Furthermore, our findings highlighting the great impacts of self-criticism on mental health were in line with a current emphasis in the social care field. While compassion has been increasingly recognised in the healthcare field in general, more acknowledgement is needed in social care (Stickle, 2016). Irish social care educators can protect their students' mental health by embedding compassion training in their curriculum. For example, discussing self-compassion in their student orientation may be effective, so that students would be more prepared to cultivate their compassionate mind, which can counter self-criticism. Mandatory personal development lectures targeting self-criticism and self-care may be also useful (Maughan, 2016). Future research should explore how compassion training can tone down their self-criticism, and help their mental health.

Alternatively, creating peer-support groups may be useful too, because students in this subject tend to feel easier to offer care for others, than to themselves (Kotera, Green & Van Gordon, 2019). When a student becomes critical of themselves, supportive peers can help reduce

their self-criticism by listening to them emphatically (Kuo, Turton, Lee-Hsieh, Tseng & Hsu, 2007). Further, reframing - changing a view on one seemingly negative quality or situation into positive - would also be useful in a peer group or personal development group (Kotera & Van Gordon, 2019). In the first author's teaching experience, a student reported that she did not like her rigidity about regulations. Peers at her table reframed that quality (rigidity) as a sign of responsibility, which is an essential quality in social care. The student noted that she was able to have a different perspective towards this quality, reducing self-criticism. Likewise, in the second author's personal development module, students helped each other to re-examine their experiences and thoughts emerged in their placement. The effects of relatively straightforward techniques such as reframing should be examined on self-criticism and mental health.

Though this study offers useful insights, several limitations need to be noted. First, though it satisfied the required size (84; Faul, Erdfelder, Buchner, & Lang, 2009), the sample size could be larger to attain higher generalisability. Relatedly, we could not explore gender differences, as the sample size for male students was small. Second, our sample was recruited through convenient sampling from one subject area at one institution and from two campuses, hence the risk of the subject bias and institution bias. Third, the social desirability bias might have been present as self-report measures were used (Latkin, Edwards, Davey-Rothwell & Tobin, 2017). Lastly, the causal directions of these relationships were not explored. In the future, longitudinal data would help appraise the temporal patterning of these identified relationships.

### ***Conclusion***

Among the challenging mental health climate in Ireland, higher education students are one population group who particularly suffers from poor mental health. Their mental health was related to negative mental health attitudes, caregiver identity, self-criticism, and self-reassurance.

Self-criticism completely mediated the relationship i) between mental health attitudes and mental health problems, and ii) between caregiver identity and mental health problems. The results indicated self-criticism as a key player in their mental health. Compassion training, supportive peer groups, and reframing were suggested to reduce self-criticism of Irish students, leading to better mental health. Our findings can help educators and researchers to identify an alternative and effective means to improve challenging mental health of Irish students.

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