Anticipatory Homesickness, Resilience, and Psychological Distress among Commencing Medical Students

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Abstract: Successful adaptation to new surroundings can be restricted by the experience of anticipatory homesickness. This may be particularly compromising in a high-stake learning environment such as medicine. This study sought to record the prevalence of anticipatory homesickness among commencing medical students, its association with psychological distress, and whether resilience mediates this association. A questionnaire comprising sociodemographic details, and items concerning homesickness, resilience and psychological distress was completed by graduate entry students at two Australian universities who had relocated to commence their medical studies (N = 75, 64% women). Psychological distress was negatively related to resilience and positively related to anticipatory homesickness. Only one resilience measure (Perception of Self) was related to anticipatory homesickness, but it demonstrated full mediation such that psychological distress was evident only in the presence of low Perception of Self. Screening and subsequent preventative programs targeting self-perception may be an appropriate check on wellbeing, enabling timely intervention to reduce psychological distress and potential adverse academic outcomes. Potential programs are discussed through the lens of social inclusion.

Keywords: Anticipatory homesickness, resilience, psychological distress, mediation, medical student relocation, social inclusion.

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Introduction

It is timely to note that there is a crisis in mental health among university students generally (Gfellner et al., 2024). This 'epidemic' is occurring in a world in which less and less university study is being undertaken one-on-one on campus. Given this context, perhaps the formula for building a new or better perception of self, and ultimately greater resilience to deal with the demands of university life, may be found in programs that focus on social inclusion.

For example, commencement at medical school is a time of significant celebration for successful applicants yet is also associated with a range of stressors. For a subgroup of medical students, the need to move geographically ('relocate') to enable the acceptance of an offered place can represent an additional transitional stressor (Chew-Graham et al., 2003). Relocation has previously been associated with both psychosocial and economic strains, and the potential to experience homesickness which may be mild for some but significant for others (Stroebe et al., 2015, 2016; Van Tilburg et al., 1996).

Homesickness has been defined as "the distress or impairment caused by an acute longing and preoccupying thoughts of home and attachment objects" (Thurber & Walton, 2012, p. 415). It has been shown to be associated with emotional, cognitive, social, and somatic ramifications (Stroebe et al., 2015). Homesickness is experienced across a continuum ranging from normative (which might be linked to positive outcomes) to severe and problematic (Sun et al., 2017; Thurber & Walton, 2012). A range of personality (e.g., emotional instability, neuroticism, and poor social self-concept) and sociodemographic factors (e.g., being younger, female, greater distance from home) have all been implicated in the experience of homesickness, although the evidence remains mixed due to the heterogeneity of study populations and the likely complex interactions among hypothesized risk factors (Stroebe et al., 2015).

Although homesickness among university students who have relocated has been relatively well studied (Thurber & Walton, 2012), its true prevalence and severity remain unknown (Stroebe et al., 2015). Early UK studies suggested 60-70% (Fisher, 2016), but reports range from 19%-94% (English et al., 2017; Stroebe et al., 2002). Homesickness may exacerbate existing conditions or lead to new ones (Thurber & Walton, 2012) such as physical, cognitive, behavioural, and emotional symptoms (Van Tilburg et al., 1996, 1999), including anxiety, depression, concentration and memory problems, neurotic

behaviour, and social isolation. Unsurprisingly, homesick students can be at risk of reduced academic performance or even course attrition (Sun et al., 2017), which may pose long term consequences for future academic prospects and employment (Atkinson, 2020; Azizi, 2016; English et al., 2017).

It has also been argued that people are able to both anticipate and self-assess homesickness (Stroebe et al., 2015). That is, if early intervention to ameliorate negative psychological consequences is a desired outcome, the evaluation of anticipatory homesickness prior to, or soon after, relocation may be possible. Van Tilburg et al. (1996), for example, describe 'anticipation homesickness' as obsessive thoughts about the old environment, experienced before having left, that inhibit exploration of, and adaptation to, a new environment (Van Tilburg, 2005). Other research also acknowledges the anticipation of leaving home in descriptions of homesickness (Van Vliet, 2001), and anticipatory homesickness has been included in prevention programs offered prior to participants leaving home (Thurber, 2005). Finally, there is evidence of self-selection such that those more likely to be homesick elect not to relocate (Stroebe et al., 2015; Van Vliet, 2001). From a theoretical perspective, anticipatory homesickness has been considered a case of secondary anxiety, or a form of separation anxiety, expressed in circumstances where there is the possibility of isolation and loneliness (Beck & Taylor, 2003; Flett et al., 2009; Sun et al., 2016).

The importance of resilience continues to be reinforced across a range of domains (Agaibi, 2018; Fletcher & Sarker, 2013; Garcia-Dia, 2013; Windle, 2011). While the difficulties of identifying a universal definition have been noted (Agaibi, 2018; Luthar et al., 2015; Park et al., 2021; Shaikh & Kauppi, 2010), it is agreed that resilience reflects a blend of abilities obtained from both internal and external resources that interact to create positive adaptation to adversity (Luthar et al., 2015; Rutter, 2012). More specifically, resilience among medical students has been demonstrated to buffer the negative effect of course demands on quality of life. Further, resilience may protect against the adverse effects of homesickness (Stroebe et al., 2015; Thurber & Walton, 2012). For the current study it was argued that anticipatory homesickness may adversely impact both students' general adjustment to university and their mental wellbeing (Munro & Pooley, 2009), with those expressing greater levels of resilience potentially demonstrating adaptive skills relevant not only to their immediate academic success but perhaps also their later career (Kjeldstadli et al., 2006; Lin et al., 2019).

In summary, the evidence remains inconsistent concerning the prevalence and intensity of homesickness (and anticipatory homesickness) among relocating university students, including its association with student wellbeing. A better understanding of the specific mechanisms of homesickness is required (Stroebe et al., 2015). The aim of the current study was to evaluate the early signs of homesickness (anticipatory homesickness) in commencing medical students. The specific questions addressed were: what is the prevalence and intensity of anticipatory homesickness among relocating medical students?; is anticipatory homesickness associated with psychological distress?; does resilience buffer the experience of anticipatory homesickness and if so, what is the nature of this resilience?

Methods

The study was approved by the human research ethics committees of both universities at which data were collected.

1. *Participants and Procedure*

This quantitative cross-sectional study invited graduate entry medical students (N = 376) who were commencing Year 1 of their studies at one of two Australian universities to participate. An email was sent during the first week of their course inviting completion of an online, anonymous survey. As it was anticipated that reflecting on homesickness may be upsetting for some students, contact details of appropriate support and counselling services were included as part of the participant information. The subsample reported in the current paper comprised those students who reported the need to relocate to accept their position.

2. *Measures*

Participants were asked their age, gender, and whether they had relocated to accept their place offer. They were also asked whether they believed it likely that they would experience homesickness during their studies (anticipatory homesickness). Responses were recorded on a 5-point scale from ‘strongly disagree’ to ‘strongly agree’.

i. Resilience

The Resilience Scale for Adults is a 33-item self-report scale that surveys intrapersonal and interpersonal factors presumed to facilitate adaptation to psychosocial adversities (Friborg et al., 2005). Each item is a semantic differential anchored by positive and negative attributes using a 5-point continuum (50% right positive, 50% left positive). In the current study only three subscales, proposed to be most relevant to the study goals, are reported. These are Perception of Self (6 items), Family Cohesion (6 items), and Social Resources (7 items). In each case scores are calculated as the mean of responses (range 1-5). Internal reliabilities (α) were .81, .82, and .80, respectively. The Resilience Scale for Adults is able to identify adjustment and vulnerability profiles in the general population (Friborg et al., 2009).

ii. Psychological Distress

The Kessler Psychological Distress Scale is a 10-item, self-report measure of non-specific psychological distress commonly used in primary health settings as a screening instrument (Kessler et al., 2003). Respondents indicate the frequency with which each item (e.g., 'How often did you feel worthless?') has been true for them during the past four weeks ('none of the time', 'a little of the time', 'some of the time', 'most of the time', 'all of the time'). Responses are scored 1 to 5, yielding a total score ranging from 10-50. Higher scores reflect greater distress (α = .89).

3. Statistical Analyses

Data were analysed using SPSS version 23.0. Relevant bivariate correlations were first calculated to determine whether the preconditions for mediation were met. Mediation was then tested using the procedures of Preacher and Hayes (2004) through their purpose-built macro (PROCESS v2.12.1). Regression coefficients were calculated for the proposed mediator on the predictor (a), the outcome on the predictor (c'), and the outcome on the mediator (b). Path c represents the magnitude of the total indirect effect between the predictor and outcome by way of the mediator, the significance of which was determined using a bootstrapped confidence interval (95%) following 5000 iterations. Path c' quantifies the direct effect from the predictor to the outcome. Variables were standardized to enable the interpretation of derived coefficients as β.

Results

The sample comprised 75 students, of whom 48 (64%) were women. Participants had undertaken either intra-state (n = 21, 28.0%), inter-state (n = 35, 46.7%), or overseas (n = 19, 25.3%) relocation, with 57 (76.0%) prior to their current studies. Age, anticipatory homesickness, psychological distress, and resilience are summarized in Table 1. Of note is that five participants (6.7%) recorded psychological distress indicative of a probable severe mental disorder (Slade et al., 2011). Women (M = 3.88, SD = 1.14) were significantly more likely to anticipate homesickness than men (M = 3.19, SD = 1.52; $t_{(73)} = 2.22$, $p < .05$). There were no other gender differences. Age shared negative associations with Family Cohesion and Social Resources, respectively. That is, younger students reported higher levels of resilience in these domains. This relationship was not evident for Perception of Self.

There were strong negative associations between all measures of resilience and psychological distress, and distress was positively associated with anticipatory homesickness. Further, among the resilience measures, only Perception of Self was significantly related to anticipatory homesickness. This result precluded the testing of mediation for Family Cohesion and Social Resources. However, Figure 1 presents the results of the test for Perception of Self as a mediator. While the size of the effect was modest, Perception of Self was nevertheless demonstrated to fully mediate the association between anticipatory homesickness and psychological distress. That is, anticipatory homesickness is proposed to be associated with psychological distress only in the presence of a low Perception of Self.

Table 1. Summary statistics and correlations among study variables.

		Range	M	(SD)	1	2	3	4	5
1	Age (years)	19 - 39	24.59	(4.74)					
2	Anticipatory homesickness	1 - 5	3.63	(1.32)	.14				
3	Psychological distress	10 - 38	18.16	(6.43)	.06	.19			
4	Perception of Self	2.33 - 5.00	3.89	(0.70)	-.13	-.30**	-.47***		
5.	Family Cohesion	1.67 - 5.00	3.99	(0.80)	-.32**	.11	-.30**	.24*	
6.	Social Resources	3.00 - 5.00	4.34	(0.58)	-.34**	-.03	-.32**	.45***	.58***

Note. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

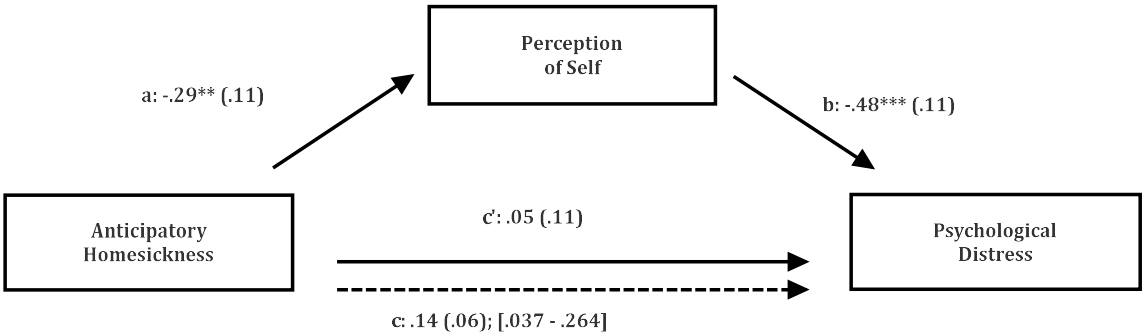

Figure 1. Schematic representation of the mediation between anticipatory homesickness and psychological distress by Perception of Self. Direct paths (* $p < .05$; ** $p < .01$; *** $p < .001$) are indicated as ⟶, and the indirect path as ⇢.

Discussion

A key goal of this study was to examine whether anticipatory homesickness existed among a cohort of medical students who had recently relocated to accept a course offer. Two of the more remote graduate entry medical programs in Australia provided these students. The importance of the choice of these programs is both the absolute distances that may be travelled by students to accept their place (geographical isolation), and the perception of remoteness (psychological isolation) that may accompany the move. Both have been acknowledged as relevant to homesickness (Stroebe et al., 2002). Of particular interest was students' psychological distress and level of resilience at commencement, and their associations with anticipatory homesickness. These are all potential indicators of personal preparedness to undertake the challenging course of study that is medicine.

The first question was the degree to which students anticipated homesickness. There were various levels of affirmation, with responses distributed along the full continuum from 'strongly disagree' to 'strongly agree', although the mean response was above the mid-point. The relevance of these arguably low incidence levels is reinforced by the observation of Stroebe et al. (2015) concerning self-selection against relocation. That is, those who believe they will experience homesickness may elect not to move. Therefore, it is congruent to suggest that the current sample actually has a lower likelihood of anticipatory homesickness than might be expected from a wider pool of prospective students. Further, being older did not seem to be related to higher resilience.

To the contrary, the current data suggest increasing age to be associated with lower reported resilience (Family Cohesion and Social Resources).

Anticipatory homesickness was associated only with Perception of Self and psychological distress. However, while the other selected measures of resilience had no relationship with homesickness they were strongly associated with psychological distress. That is, there was evidence of the importance of resilience to distress, but not of resilience to anticipatory homesickness. Perception of Self, on the other hand, was not only related to homesickness, but fully mediated the association between anticipatory homesickness and psychological distress. Note that an important caveat to these observations is the small magnitude of the relationship between Perception of Self and anticipatory homesickness and also of the overall mediation coefficients.

It is of some interest that the key component of resilience in this research was a personal variable rather than family or social variables. Intuitively the alternate result might be expected. That is, homesickness might be expected to be associated with the stressors of separation from family and/or social isolation. Instead, it was a negative self-perception that played the key role. Anecdotally, the quest for medical school entry often involves compromise and sacrifice from families, being viewed as 'a team effort'. Hence rather than being stressed by separation/isolation, relocating students may actually feel a heightened sense of connection to those who helped them 'succeed' in gaining a medical course position, particularly at course commencement. This account may explain why only Perception of Self was related to anticipatory homesickness.

Additionally, the relevance of this finding may be found in the interpretation of Perception of Self as an index of emotional stability/neuroticism (Friborg et al., 2005). A neurotic personality is a potential risk factor for homesickness and psychological distress whereas emotional stability may offer a protective effect to vulnerable students. The potential benefit of this finding is that, unlike separation from family and/or social isolation (stressors that cannot easily be altered for relocated students) emotional stability represents a target for intervention programs. That is, personal level resilience can become the focus of interventions for reducing the potential for both psychological distress and the manifestation of homesickness at a later time.

Within this framework, more flexible leave policies to support homesick students returning 'home' are unlikely to be an effective management strategy. To the contrary, such allowances could actively interfere with the opportunity to develop personal level

resilience that might later be helpful as the student progresses through the course and embarks on a career as a medical practitioner. That is, resilience may assist them in facing the inherent challenges of medicine and also their ongoing career development as they pursue opportunities in different intra-state, inter-state or international locations.

Nevertheless, there does appear to be a role for the institution at which the student is enrolled to promote greater resilience to deal with the demands of university life. This role could reasonably focus on programs that foster social inclusion. There are a number of ways in which such programs may assist, with the overarching goal being the encouragement to develop a new social community to protect against the development of homesickness by encouraging greater connectedness (Buote et al., 2007; Wilcox et al., 2005).

It is possible that anticipated homesickness arises from isolation in new surroundings. Social inclusion actively reduces such feelings of loneliness. Among international students, Poyrazli and Lopez (2007) found social inclusion to be effective in ameliorating homesickness by promoting emotional well-being. Social inclusion may include, for example, the structuring of a local support network. Stroebe et al. (2002) have shown that the availability of social support is protective against homesickness as it entails a reliable network for emotional sharing, advice, and practical help in the form of structured tutoring provided, for example, by university-provided mentors. This is particularly useful during the initial transition period in a new environment.

Social inclusion also bolsters a sense of belonging. When the basic psychological need for meaningful relationships is met, feelings of homesickness are less likely (Baumeister & Leary, 1995), with Watt and Badger (2009) reporting that students who perceive greater social inclusion on campus report lower levels of homesickness. Further, social connections facilitate quicker and more successful adaptation (Fisher, 2016). Being socially active encourages the development of new routines, allowing a focus on the positive aspects of a new environment, again with the potential to reduce the impact of anticipated homesickness. Finally, social inclusion may specifically improve resilience against the anticipation of homesickness by promoting emotional well-being through social connectedness (Van Tilburg et al., 1996). Inclusive environments allow the expression of feelings and the receipt of emotional validation, thus preventing the escalation of homesickness into more severe emotional distress.

Limitations

The current findings should be considered with reference to a number of caveats. First, the available sample size was relatively small. Second, the effect size of the mediation reported was also modest. While these two facts may be associated with each other (i.e., a larger effect size may be obtained in future research should a larger sample be available), it may also be that the importance of Perception of Self is a statistical artefact. Third, the model presented is a hypothetical, albeit plausible, representation of the manner in which the study variables are associated with each other. However, it may be that other relations among the variables are equally likely. That is, a causal relationship cannot be claimed. It may be, for example, that higher levels of psychological distress result in the expression of anticipatory homesickness and/or lower levels of resilience. The current analyses, on the other hand, have proposed psychological distress to be the outcome of these variables. Similarly, lower levels of resilience may lead to the reporting of anticipatory homesickness. This is likely due to perceived social isolation and loss of social support. Finally, while the value of recording anticipatory homesickness has been demonstrated, as argued, its association with the later development of homesickness *per se* in this cohort requires confirmation.

The manner in which non-academic problems such as perceptions of self and homesickness impact on student motivation for learning and participation and subsequently influence early academic achievement is important to consider, particularly for highly competitive courses such as medicine (Abdulghani et al., 2014; Elliott, 2016; Stegers-Jager et al., 2012). The value of the current research is that it represents one of the first attempts to identify a mediating relationship in relation to the complex construct of homesickness and the associated ability to adapt, with personal resilience being more proximal to psychological distress than anticipatory homesickness (Stroebe et al., 2015).

Conclusions

As noted, the demands of university life are creating a mental health crisis among students (Gfellner et al., 2024). Among a group of students who relocated to study medicine, poor mental health is associated with anticipatory homesickness. For a small number in the current study the related psychological distress was severe. While the

magnitude of the identified relationship was modest, full mediation by personal resilience was noted. This finding was not evident for other types of resilience relating to the closeness of family or the availability of social resources, suggesting that targeting personal resilience may be a positive step in mitigating psychological distress. Such observations provide encouragement for further research as universities seek effective means of promoting both student performance and wellbeing at a time when the medical profession is also concerned with the psychological health of its members, including its students (Puthran et al., 2016). As the need for relocation continues to be a feature of medical education, focusing on any protective factors that may assist students may be an important goal for universities offering medical programs. Specifically, it is argued that a focus on social inclusion may militate against the effects of anticipated homesickness. Factors such as a strong university-led support network, a sense of belonging, and the promotion of positive adaptation may promote emotional resilience as a necessary psychological resource for managing the challenges of being away from home.

Compliance with Ethical Standards

a) Conflict of Interest - The authors report no conflicts of interest.

b) *Ethical Standards* -The study was conducted in accord with the ethical standards of the institutional research committees and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

c) Informed Consent -All participants gave their informed consent prior to their inclusion in the study.

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