

Original Article

Cite this article: Saifuddin A.B.A., Tam C.L., Lim P.C., and Bonn G. (2019). Examining social support and its relation to worry in Malaysia. *Journal of Pacific Rim Psychology*, Volume 13, e25. <https://doi.org/10.1017/prp.2019.18>

Received: 5 October 2018

Revised: 5 April 2019

Accepted: 8 April 2019

Keywords:

worry; social support; Malaysia; qualitative analysis; secure base

Author for correspondence: Gregory Bonn,
Email: gbonn@hotmail.com

Examining social support and its relation to worry in Malaysia

Aneesa Binti Ahmad Saifuddin¹, Tam Cai Lian¹, Lim Peng Chong² and Gregory Bonn³

¹Monash University Malaysia, Bandar Sunway, Malaysia; ²Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia and ³Nagoya University, Nagoya, Japan

Abstract

This study examined the role of social support in managing worry among a sample of Malaysian adults. An online questionnaire was completed by 136 participants (age $M = 34$, $SD = 7.65$; 71% female, 29% male). Each wrote open-ended, essay-type descriptions of their experiences with social support in relation to worry, as well as completing measures of pathological worry (Penn State Worry Questionnaire), normal worry (Worry Domains Questionnaire), and perceived social support (Multidimensional Scale of Perceived Social Support). Results indicated that young adults experienced a higher degree of normal worry compared to older adults, but pathological worry was not significantly different between the two groups. No significant differences in worry were found in relation to gender, ethnicity or marital status. Perceived social support was negatively related to levels of both normal and pathological worry. Qualitative analyses pointed towards four important roles for social support: providing a sense of belonging and security, providing emotional relief or catharsis, helping to reappraise situations, and facilitating problem-solving and decision-making. The role of social support as a secure base that facilitates emotion management and helps to ground thinking is discussed.

People worry. Central features of human lives such as relationships, finances and careers all involve a degree of uncertainty. Many sorts of real and potential problems can arise; things can and do go wrong. One of the defining traits of humanity is the ability to consider the future and imagine various possible outcomes. An upshot of this special ability, however, is that at times we focus on the negative. Worry is a focus on undesirable outcomes that becomes extended over time. For most, a degree of worry is normal and largely adaptive (Esbjorn et al., 2015). It is hard to imagine anyone experiencing a full range of emotions without sometimes feeling worried or anxious about the future. Most can use worry as a means of preparing for, or avoiding, unwanted outcomes (Borkovec, Ray, & Stöber, 1998; Stöber & Joormann, 2001a). Some, however, worry to a degree that becomes overwhelming and debilitating, and unchecked, this can have serious consequences. Excessive worry is, in fact, a core symptom of generalized anxiety disorder and relates to interpersonal problems, academic difficulties, self-harm and thoughts of suicide (Dugas, Schwartz, & Francis, 2004; Tan, Bonn, & Tam, 2018). Excessive worry perpetuates and exacerbates emotional distress rather than facilitating planning or coping (Kertz, Bigda-Peyton, Rosmarin, & Björgvinsson, 2012). Excessive worry can take on a life of its own. Those suffering from generalized anxiety disorder, for example, can experience worry itself as a topic of worry (e.g., “I have too many worries; I can’t stop worrying”; Wells, 1995). Again, such maladaptive levels of worry have been linked to a variety of psychopathologies (Barlow, 1988; National Institute of Mental Health, 2016; Newman, Llera, Erickson, Przeworski, & Castonguay, 2013).

A large body of research findings suggest that social support may be a key factor in alleviating or protecting against excessive worry, as well as promoting general psychological well-being (e.g., Cohen, 2004; Seeman, Lusignolo, Albert, & Berkman, 2001). Social support is thought to dampen or moderate the negative effects of stress on psychological well-being (e.g. Cohen & Wills, 1985; Waters et al., 2013), as well as promote proactive coping and improved quality of life in general (Kawachi & Berkman, 2001; Rueger, Malecki, Pyun, Aycocock, & Coyle, 2016). Social support can be thought of as providing a sense of security in the face of uncertainty or, in attachment terms, a secure base to which an individual is able to retreat when experiencing stress or anxiety (Feeney & Collins, 2015). The role of social support as a secure base is thought to be important because it provides a safe space for the individual to calm negative emotions and refocus their attention away from abstract fears and towards concrete challenges that can be addressed. However, even knowing the important benefits of social support, it is not always clear how it is best provided. Thus, the primary purpose of this study was to look in some depth at the experience of social support in relation to worry among a group of Malaysian adults. This was

© The Author(s) 2019. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

hoped to provide insight into how, and in what forms, social support can best help to alleviate worry.

Normal and pathological worry

Again, although worrying is normal for humans to a degree, when it persists over a long period of time and does not aid with coping, it becomes problematic, even pathological (Borkovec *et al.*, 1998; Esbjorn *et al.*, 2015). Excessive worry becomes a source of stress and a hindrance to coping in and of itself. The study of worry thus encompasses two types of worry: normal, or adaptive forms of worry; and excessive, or potentially pathological, worry. Pathological worry, commonly measured using the Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990), refers to persistent and excessive worry that can interfere with functioning. Normal worry, commonly measured using the Worry Domains Questionnaire (WDQ; Stöber & Joormann, 2001a), refers to worries experienced, at times, by most individuals in various day-to-day life domains, such as relationships and work. To ensure that the construct of worry is examined in a comprehensive manner, Stöber and Joormann (2001b) recommend measuring both types.

Worry and demographics

Although to some degree worrying is a universal human phenomenon, previous research has looked at differences in worry proneness across various groups. In general, these results are far from conclusive, but one consistent finding relates to age: Worry tends to be more prevalent in younger adults compared to older adults (Basevitz, Pushkar, Chaikelson, Conway, & Dalton, 2008; Golden *et al.*, 2011; Gonçalves & Byrne, 2013; Lindesay *et al.*, 2006). Mature adults, it is suggested, have more experience in coping with various problems (Valliant, 1977) and are more likely to feel established or secure in their situations, leaving them less likely to feel threatened about the future (Armstrong, Wuthrich, Knight, & Joiner, 2014; Borkovec, 1988). This is not true for everyone though. Those who tend towards chronic or pathological worry tend to report more intense worries as they get older (e.g. Wisocki, Hunt, & Souza, 1998).

Other demographic factors generally show inconsistent results. With regard to gender, for example, although many intuitively see women as more prone to worry, research does not support the idea of consistent gender differences. Some studies have found a greater tendency towards worry among women compared to men (e.g. Golden *et al.*, 2011; Robichaud, Dugas, & Conway, 2003). Others, however, have found no gender differences (e.g., Brown, Antony, & Barlow, 1992; Tallis, Davey, & Bond, 1994). Similarly, with regard to ethnicity, although results are somewhat mixed, the majority of studies show no clear differences in pathological worry between ethnic groups (Gillis, Haaga, & Ford, 1995; Scott, Eng, & Heimberg, 2002).

Specifically looking at Malaysia, which is the focus of this research, there are three major ethnic groups that are clearly defined by law (Malays, Malaysian-Chinese, and Malaysian-Indian). To our knowledge, previous studies have not specifically looked at ethnic differences for worry. However, large-scale public health studies (Institute for Public Health, 2011) have suggested that generalized anxiety disorder (GAD) is more prevalent among ethnic Indians as compared to Malays and ethnic Chinese. Also, the same data appear to show greater tendencies towards GAD among Malaysian females and young adults. For this reason, this study also took a preliminary look at the relationships between age, gender, ethnicity and worry among Malaysians. Identifying

whether differences in pathological worry exist between Malaysian ethnic groups, it was thought, could provide clues regarding this observed prevalence of GAD and thus assist in focusing intervention efforts.

Anxiety and worry

As mentioned, there appears to be a qualitative difference between moderate or normal worry and more severe forms of worry that are associated with GAD. Individuals with GAD tend to exhibit a disproportionate fear of negative events, along with low self-efficacy. Compared to others, they foresee worse consequences when things go wrong and feel less capable of solving problems (Ladouceur, Blais, Freeston, & Dugas, 1998; Wong *et al.*, 2016). GAD patients also tend to be hypersensitive to changes in their emotional states, particularly fearing shifts in mood from positive to negative. Because of this, positive emotions can, paradoxically, become a source of anxiety: The anxious person knows that good feelings are certain to end at some point and they fear the transition back to negativity (Llera & Newman, 2011). Chronic worry, for the anxious person, thus becomes a form of self-protection. They avoid the pain of negative emotional shifts by convincing themselves that positive feelings are not real, thereby minimizing shock and pain of what they see as inevitable adversity and loss (Newman *et al.*, 2013). Relatedly, GAD and pathological worry are linked to traits such as indecisiveness, intolerance of uncertainty, and perfectionism (Koerner, Mejia, & Kusec, 2017). The highly anxious person is much more afraid of failure or negative events than most; they see negative consequences as being much more severe. Thus, unconsciously, they use worry as a buffer against making decisions or commitments. In the process, by obsessing over seemingly minor issues, they achieve a level of predictability. They avoid the pain of disappointment and failure in the real world by continually playing out negative scenarios in their mind (Rassin, 2007; Stöber & Joormann, 2001b).

Perceived Social Support, Worry, and Anxiety

Social support can assume a variety of forms. Thus, it has been operationalized and studied in several ways. Past research has conceived of social support variously as social embeddedness or connectedness, enacted support or actual support received, and perceived social support (see Barrera, 1986, for a review). Of these three operational constructs, perceived social support (PSS), or the belief that adequate support is available when needed, has been found to have the greatest impact on mental health (Barrera, 1986; Calvete & Connor-Smith, 2006; Lakey & Orehek, 2011). PSS has been shown to relate to the individual's specific appraisal of the support available to them (Antonucci & Israel, 1986) as well as to feelings of relationship satisfaction (Sarason, Sarason, Shearin, & Pierce, 1987). Thus, aside from being relatively easy to measure through self-report, the construct of PSS includes elements of both embeddedness, and enacted support.

Studies consistently indicate that PSS relates to better mental health outcomes. Those reporting higher levels of PSS, for example, have lower rates of clinical depression (Lakey & Cronin, 2008) and fewer symptoms of post-traumatic stress disorder (PTSD; Brewin, Andrews, & Valentine, 2000). PSS also relates to lower anxiety levels (Holt & Espelage, 2005) and stress-inducing situations and events being perceived as less important (Duman & Kocak, 2013). In neurological terms, PSS appears to lessen the expression of anxiety in the amygdala, thus acting as a protective factor against

the development of psychopathologies such as PTSD and severe depression (Hyde, Gorka, Manuck, & Hariri, 2011).

Specifically, with regard to worry, studies have indicated that PSS benefits those with more situation-specific worries. Caregivers of disabled children (Ma & Mak, 2016) and breast cancer survivors (Waters, Liu, Schootman, & Jeffe, 2013), for example, reported palliative effects on mental health when receiving adequate social support. Studies of the relationship between social support and more generalized or pathological worry, however, are relatively rare. Also, importantly, it is not known exactly how social support helps to alleviate worry or what the most effective types of social support are. Many studies, both quantitative and qualitative (e.g. Dam, Boot, Van Boxtel, Verhey, & De Vugt, 2018; O'Connor, Longman, White, & Obst, 2015), have focused more on the perceived presence of social support than on the forms it takes and how it is beneficial. Qualitative studies on the nature of social support have found somewhat mixed results: Some types of social support seem to be experienced as particularly beneficial while others are not. Previous results have cited the perceived value of emotional support and expert knowledge (Dwarswaard, Bakker, Staa, & Boeije, 2016). However, support that is seen as too directive or that limits individual autonomy is sometimes perceived negatively (e.g. Feeney & Collins, 2015; Potvin, Brown, & Cobigo, 2016). Thus, a better understanding of the qualitative nature of social support, what works and what does not may be an important key to understanding its relationship to worry and other aspects of mental health.

Returning to the context of this study in Malaysia, we can see that despite an increasing prevalence of anxiety disorders over the past 20 years, as well as an established link between worry and anxiety, there has been little research on worry (Ahmad et al., 2015). Similarly, looking specifically at the Malaysian setting, there is no known research on the nature and effectiveness of available social support. Qualitative investigations of social support in other settings have indicated that social support can improve feelings of worth or self-esteem (Lakey & Cohen, 2000; Thoits, 1982) as well as lessen anxiety and support proactive coping (Casale, Wild, & Kuo, 2013). There is, however, no known qualitative research examining the subjective aspects of social support in Malaysia.

Research aims and significance

The aims of this study were thus to provide a preliminary look at the prevalence of worry and social support in Malaysia (i.e. Which major groups are most affected by worry?). And, more importantly, to take an in-depth qualitative look at the roles that social support plays in managing worry for Malaysian adults (i.e. How do they experience social support and what do they perceive to be most helpful or beneficial?).

Due to the small sample size, quantitative measures were intended merely to provide some general guidance for future studies. The more important contributions of this study were expected to lie in a qualitative analysis of how social support is experienced. Looking at how Malaysians experience social support in general and the more specific role which it plays in alleviating worry could, it was hoped, contribute to our overall knowledge of social support's importance in mental health and well-being in general.

Research questions

The primary research questions are listed below.

Research Question 1: How does the prevalence of normal, pathological worry, and perceived social support vary across demographic groups in Malaysia?

Research Question 2: Do higher levels of perceived social support relate to lower levels of normal and pathological worry?

Research Question 3: What forms of social support do Malaysians benefit from?

Research Question 4: How does social support assist Malaysians in managing worry? (i.e. What roles does social support fill, and how is it beneficial?)

Method

Participants

This study used a convenience sample of participants ($N = 136$) recruited through social media advertisements and subsequent snowball sampling (i.e. peer referrals). Any Malaysian citizen over the age of 18 years was eligible to participate. The final sample included 96 females (71%) and 40 males (29%), ranging from 21 to 59 years old ($M = 33.99$, $SD = 7.65$). The majority of the participants were of Malay ethnicity (61%), followed by Malaysian Chinese (26%), Malaysian Indians (8%) and others (5%). In terms of marital status, 53 participants were single (39%), 77 were married (57%) and 6 were divorced or separated (4%). As for employment status, 54% were employed full-time, 6% were employed part-time, 12% were self-employed, 12% were unemployed and 17% were not in the workforce (either retired or studying full-time). In terms of education, most of the participants either had a bachelor's degree (65%) or a postgraduate degree (31%). Only 4% had just a high school diploma or equivalent.

Ethics

This research project was approved by the Monash University Human Research Ethics Committee (Project Number 10409).

Design

This research project used a mixed-method, non-experimental approach. Both quantitative (for the first two research questions) and qualitative data (for the third research question) were collected through an online survey. The quantitative portion of the study was correlational in nature. The dependent variables were pathological worry and normal worry. The independent variables were perceived social support, age, gender, ethnicity and marital status. The qualitative portion consisted of a thematic analysis of open-ended responses regarding the roles and value of social support in managing worry.

Measures

Demographics

The demographics section asked for information about age, gender, ethnicity, marital status, educational status and employment status.

Pathological worry

The Penn State Worry Questionnaire (PSWQ; Meyer et al., 1990) is a 16-item, self-rated scale that is used to measure the severity of pathological worry. It has robust psychometric properties with high internal consistency ($\alpha = .93$), well-established test-retest reliability ($r = .87$) and good validity (Molina & Borkovec, 1994; Stöber, 1998). Respondents rate the degree to which items describe their worry-related experiences on a 5-point scale, from 1 (*not at all typical of me*) to 5 (*very typical of me*). Higher scores indicate more severe levels of pathological worry. The possible scoring range for

the PSWQ is from 16 to 80. Scores from 16 to 39 represent low levels of worry, 40 to 59 represent moderate levels of worry, and scores above 60 are considered to be high, potentially indicative of an anxiety disorder (Salzer, Stiller, Tacke-Pook, Jacobi, & Leibing, 2009).

Normal worry

The Worry Domains Questionnaire — Short Form (WDQ-SF; Stöber & Joormann, 2001a) is an abbreviated version of the 25-item WDQ (Tallis, Eysenck, & Mathews, 1992). It measures the amount of normal worry in five domains of day-to-day concern, namely aimless future, work, relationship, financial issues, and lack of confidence. WDQ-SF displayed a near-perfect correlation with the original WDQ ($r = .97$) and a high internal consistency ($\alpha = .88$). Each item describes the worry content of a person, and clients are asked to rate how much they experience that type of worry on a scale of 0 (*not at all*) to 4 (*extremely*). A total score is obtained by summing the ratings of each item. Higher scores indicate greater amounts of normal worry. As the WDQ-SF is designed to measure domains of normal worry, it does not have a standard clinical cut-off point.

Perceived social support

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Stiller Tacke-Pook, Jacobi, & Leibing, 1988) contains 12 items and is designed to assess the degree to which social support is perceived to be available from significant others, family and friends. The MSPSS has been shown to be valid and reliable across cultures and age groups, with good internal consistency ($\alpha = .88$), test-retest reliability ($\alpha = .85$) and factorial validity (Stanley, Beck, & Zebb, 1998; Wongpakaran, Wongpakaran, & Ruktrakul, 2011). The items are rated on a scale of 1 (*very strongly disagree*) to 7 (*very strongly agree*). A total score is calculated by adding the ratings for each item. Total scores from 12 to 35 are considered low social support. Scores of 36 to 60 indicate moderate levels of support, and scores above 60 are considered high levels of support.

Open-ended essay question

Participants were asked to describe in their own words, and in as much detail as possible, the ways in which support from family, friends and others has played a role in helping them manage worry in their lives.

Procedure

A mass email advertisement was sent first to the researchers' social media contacts and subsequently disseminated to other eligible participants via snowball sampling. All eligible parties were informed of the criteria for participation and the general purpose of the study. Interested individuals followed a link to the online questionnaire and were subsequently presented with an explanatory statement/informed consent agreement. This statement provided further information about the study and clearly explained that participation was voluntary and that participants were free to withdraw at any time. Participants were provided with contact information for a 24-hour counselling hotline, as well as the primary investigator, in case they felt uneasy or required counselling during or following the survey. Participation was completely voluntary. No participants received compensation of any sort. Measures were presented to participants in the same order as listed in the measures section above.

Results

Following a 3-week collection period, questionnaire data were downloaded into spreadsheet format and prepared for analysis. Quantitative data were analysed using IBM SPSS Statistics version 22. Qualitative coding and textual organization processes were facilitated through the use of QSR NVivo 12 Plus. Results are outlined below.

Quantitative Assumptions

There were no missing values or outliers identified in the data (e.g. Tabachnick & Fidell, 2013). For the parametric tests, data on other ethnic groups and the divorced were excluded due to small sample sizes. In addition, data on employment status and educational level were excluded as these variables are not the focus of this research. An assumptions check revealed that the data for participants' age, normal worry levels and perceived social support levels were not normally distributed. Similarly, the normal worry scores for females and those in the age group 40–59 were also not normally distributed. However, according to the central limit theorem, since the sample size was large ($N > 30$), the violation of normality was not an issue (Field, 2013). Homogeneity of variance in worry levels were equal across demographic variables.

Worry and demographics

Means and standard deviations for pathological worry (PSWQ), normal worry (WDQ-SF) and perceived social support (MSPSS) for all demographic variables are presented in Table 1. Internal consistency (Cronbach's alpha) was good for all three measures (PSWQ: $\alpha = .84$; WDQ-SF: $\alpha = .89$; MSPSS: $\alpha = .86$).

Age was found to have a significant negative correlation to normal worry $r(134) = -.295, p < .01$, but not pathological worry, $r(134) = -.127, p > .05$. Older participants reported significantly less normal worry, but pathological worry was not related to age.

Other demographic variables revealed no significant relationships to worry.

For gender, no significant differences between women and men were found for pathological worry, $t(134) = 1.60, p > .05$, or normal worry, $t(134) = -.223, p > .05$.

For ethnicity, no significant differences between ethnic groups were found for pathological worry, $F(2, 126) = .017, p > .05$, or normal worry, $F(2, 126) = .413, p > .05$.

For marital status, no significant differences were found between single and married participants for pathological worry, $t(128) = -.124, p > .05$, or for normal worry, $t(128) = .460, p > .05$.

For social support and worry, PSS was negatively correlated to both normal worry, $r(134) = -.209, p < .01$, and pathological worry, $r(134) = -.277, p < .01$. Both measures of worry decreased with higher levels of social support.

Open-ended responses

Participants' open-ended descriptions of their experiences with social support were systematically examined by means of thematic analysis. In the last portion of the questionnaire, participants described in their own words their experiences regarding social support and the management of worry. Responses ranged between 83 and 326 words, with an average response of about 180 words ($M = 178, SD = 24$). Our analysis, as stated in Research Questions 3 and 4, addressed two separate issues: the experienced benefits of social support and the specific types of support they found helpful.

Table 1. Mean scores for pathological worry, normal worry and perceived social support across demographic groups ($N = 1,36$)

| Demographic variables | <i>n</i> (%) | Pathological worry | | Normal worry | | PSS | |
|-----------------------|--------------|--------------------|-----------|--------------|-----------|-------|-----------|
| | | Mean | <i>SD</i> | Mean | <i>SD</i> | Mean | <i>SD</i> |
| Total | 136 (100%) | 46.03 | 13.37 | 16.82 | 9.56 | 65.21 | 12.48 |
| Age group | | | | | | | |
| 20–29 | 41 (30%) | 48.22 | 15.30 | 19.63 | 10.07 | 63.90 | 10.63 |
| 30–39 | 71 (52%) | 46.03 | 12.87 | 17.13 | 9.22 | 64.35 | 12.96 |
| 40–59 | 24 (18%) | 42.29 | 10.76 | 11.08 | 7.25 | 70.00 | 13.34 |
| Gender | | | | | | | |
| Female | 96 (71%) | 47.21 | 13.95 | 16.70 | 9.95 | 64.58 | 13.02 |
| Male | 40 (29%) | 43.20 | 11.54 | 17.10 | 8.66 | 66.73 | 11.10 |
| Ethnicity | | | | | | | |
| Malay | 83 (61%) | 46.05 | 13.70 | 17.24 | 9.10 | 64.98 | 13.34 |
| Chinese | 35 (26%) | 45.60 | 13.73 | 15.63 | 10.56 | 64.66 | 10.39 |
| Indian | 11 (8%) | 45.55 | 12.28 | 15.73 | 9.17 | 67.27 | 12.80 |
| Others | 7 (5%) | 48.71 | 11.50 | 19.43 | 11.50 | 67.57 | 13.09 |
| Marital status | | | | | | | |
| Single | 53 (39%) | 46.04 | 14.26 | 17.47 | 10.07 | 63.91 | 10.56 |
| Married | 77 (57%) | 46.34 | 13.01 | 16.69 | 9.18 | 66.34 | 13.41 |
| Divorced | 6 (4%) | 42.00 | 11.15 | 12.67 | 10.31 | 62.33 | 16.27 |
| Employment | | | | | | | |
| Full-time | 73 (54%) | 45.44 | 12.45 | 16.97 | 9.05 | 66.78 | 11.93 |
| Part-time | 8 (6%) | 48.50 | 14.78 | 14.25 | 12.41 | 64.00 | 15.52 |
| Self-employed | 16 (12%) | 46.56 | 18.54 | 17.44 | 10.29 | 65.00 | 13.71 |
| Unemployed | 16 (12%) | 49.00 | 13.56 | 17.50 | 10.23 | 61.94 | 14.32 |
| N/A | 23 (17%) | 44.61 | 12.23 | 16.30 | 9.82 | 63.09 | 11.15 |
| Education level | | | | | | | |
| Bachelor's | 88 (65%) | 47.92 | 13.51 | 18.78 | 9.27 | 65.27 | 11.65 |
| Postgraduate | 42 (31%) | 41.14 | 11.13 | 12.33 | 8.48 | 66.40 | 13.95 |
| Diploma | 6 (4%) | 52.50 | 17.99 | 19.33 | 11.72 | 56.00 | 11.71 |

Note: PSS = perceived social support.

Coding was conducted by the primary investigator and two graduate assistants. All had extensive training in qualitative analysis as well as backgrounds in psychological counseling. Analysis was done in iterative phases over the course of six weeks, with coders meeting twice per week to compare coding notes and perform reliability checks.

In analyzing the roles played by social support, the following procedure was used. First, all participant responses were read through line by line to gain an overall familiarity with the data. Next, during a second pass through the data, “concepts” were identified by noting key points that were relevant to each issue in question (i.e. benefits of social support and/or types of social support). Each coder worked separately to identify concepts, which were then combined through discussions and a process of consensus into a common vocabulary. After the initial concepts were identified, their labels were reviewed, rearranged and grouped based on similarity. Throughout this coding process, agreement between

coders was very high ($K = .92$). Over several iterations of this process, a set of higher-order “themes” was agreed to be representative of the manner in which lower order “concepts” could be meaningfully grouped. These “themes” were in turn examined for similarities and connecting patterns, eventually resulting in a set of four overarching “categories” that represent the major roles for social support described by the participants. Results are shown in Tables 2 and 3.

In analyzing the types of support participants found most beneficial, the first two stages of coding – those related to “concepts” and “themes” – were essentially the same, but for the final “category” stage, the themes identified within our Malaysian sample were matched with categories of social support (i.e. emotional, tangible and informational) borrowed from the literature (e.g. Cohen & Wills, 1985; House & Kahn, 1985). See Table 4 for these categories, along with concepts and themes derived from the Malaysian data.

Table 2. Concepts, themes and categories: roles of social support

| Concepts | Themes | Categories |
|---|---|--|
| Warmth Comfort Love Nurturance | Provides a feeling that other people care and love them | Provides a sense of belonging, security and being loved |
| Security Dependability Acceptance Connectedness | Gives a sense of belonging and security | |
| Safety Calming Relief Relaxation | Reduces fear and helps to feel calmer and more relaxed | Reduces fear and provides emotional relief |
| Talking Unloading Cheering-up | Provides an outlet to vent | |
| Processing Being rational Seeing reality Gaining perspective Grounding | Helps to gain new perspectives and shift their thinking to become more realistic and sensible | Enables the reappraisal of threatening situations and facilitates cognitive reorientation |
| Refocusing Prioritizing Making decisions Finding solutions Making plans | Provides support in solving problems, making decisions and taking actions | Enhances one's self-efficacy and facilitates effective problem-solving and decision-making |
| Boost confidence Feel stronger More motivated Instil hope | Increases their confidence and motivation to face the challenges | |

Table 3. Main roles of social support in managing Worry

| Role | Description |
|---|--|
| Provide a sense of belonging, security and being loved | Provide a sense of belonging and security: Unconditional acceptance. Feeling loved, comforted and cared for. |
| Reduce fear and provide emotional relief | Provide relief from fear, stress and worries: An outlet for venting. A space to feel calm and relaxed. |
| Reappraisal of situations. Facilitate cognitive reorientation | Reorients thinking: Provides new perspectives. Encourages realistic and sensible thought patterns. |
| Enhance self-efficacy. Facilitate problem-solving and decision-making | Increases confidence. Motivates to face challenges. Supports concrete problem-solving and decision-making processes. Facilitates problem solving vs. worrying. |

Discussion

Overall, the quantitative data from this Malaysian sample echo previous studies from other countries. These results, discussed briefly under the headings “Worry and demographic groups in Malaysia” and “Worry and perceived social support”, suggest that broad patterns of worry and how it interacts with social support are not meaningfully different in Malaysia as compared to other countries. More noteworthy from a theoretical perspective, our qualitative analyses describe from the participants’ standpoint the experience of receiving social support and the roles that it serves in their lives. These roles represent the subjective, largely emotional benefits that participants experience when receiving social support. Understanding these roles, which are discussed under the heading “The role of social support in managing worry”, should be of use in

providing direction for future research and better understanding of the nature of social support’s salutary effects. The next subsection, “Helpful actions by support providers”, discusses more specifically the behaviors that participants find most valuable when in need of support.

Worry and demographic groups in Malaysia

The results of our demographic comparisons were essentially in line with those of previous studies. No significant differences in normal or pathological worry were found for gender, marital status and ethnicity. These results are in agreement with previous research, which has been largely inconclusive with regard to the relationship of worry and most demographic categories (Brown *et al.*, 1992; Golden *et al.*, 2011; Robichaud *et al.*, 2003; Tallis

Table 4. Concepts, themes and categories: helpful actions by support providers

| Concepts | Themes | Categories |
|---|---|-----------------------|
| Listen Be understanding Show empathy Don't judge | Listening with empathy and without being judgmental | Emotional support |
| Allow to share problems Give space to think Allow self-expression | Providing a safe space | |
| Give attention Active responding Asking questions Checking in Being available | Being dependable and available | |
| Provide love and care Comforting Providing assurance Instil hope | Providing care, assurance, comfort | |
| Unconditional support Forgiveness Show confidence | Unconditional acceptance and confidence | |
| Cheer up Take me out Provide distraction | Changing mood, redirecting attention | |
| Errands Babysitting Cooking Chores | House and child-care support | Tangible support |
| Money Recommend for jobs | Financial and job support | |
| Advice Alternative solutions Suggestions Insights | Guidance | Informational support |
| Logic Rational thinking Widen perspective Strengths Weaknesses | Clarify thinking | |
| GodCore beliefs Letting go Morality Life perspective | Remind of important things | |

Note: Categories taken from House and Kahn (1985).

et al., 1994). Furthermore, in line with previous research, there was a significant decrease in normal worry with age, but no difference in age for pathological worry (e.g. Babcock, Malonebeach, Hou, & Smith, 2012; Powers, Wisocki, & Whitbourne, 1992).

Due to the limited size and general non-representativeness of these data (see limitations), it would not be appropriate to generalize much from these quantitative results. Overall, however, 9.1 % of the total variance in normal worry levels in this study could be accounted for by age, indicating a moderately strong relationship. Previous research has suggested that young people, in general, have more “day-to-day” worries, or more concerns related to domains such as work, relationships, and future plans. It is easy to imagine 20-somethings being less settled in these areas compared to those in their 40s and 50s (e.g. Borkovec, 1988; Valliant, 1977). Those prone to pathological worry, on the other hand, seem to be more anxious by disposition. So, rather than using worry as an adaptive

tool in response to relevant challenges, they may be more prone to worry regardless of their situation (Newman et al., 2013). As a result, their tendency to worry may be less likely to decrease with age.

Worry and perceived social support

As expected, a significant negative relationship was evident between PSS and both pathological worry and normal worry. This finding is consistent with a large body of research demonstrating connections between social support, better mental health, and improved overall well-being (e.g. Cohen & Wills, 1985; Hobfoll & Vaux, 1993; Kawachi & Berkman, 2001; Wills, 1991).

Considering that worry-related cognitive processes are central to many emotional disorders (e.g. Newman et al., 2013) and are symptomatic of a wide range of mental illnesses (Kertz et al.,

2012), this suggests that, if it in fact can reduce worry, social support might play an important buffering role between stressors and negative health outcomes. Again, the limited size and correlational nature of these data mean that the current findings cannot imply causality and are not generalizable. However, the large body of previous research connecting social support with improved outcomes supports the idea that social support can be both salutary and protective.

The role of social support in managing worry

The conception of social support as protective led to the final two research questions: How, and in what ways, does social support alleviate the experience of worry? These questions were approached through examining the content of long-form, open-ended written responses. Throughout our analysis of written responses, the most prominent, recurring theme was social support as a source of belonging and security. Social support reassures us that others care about us and thus has an intrinsic calming effect. Worry is akin to a feeling of potential danger or threat (de Jong-Meyer *et al.*, 2009; Dugas & Koerner, 2005), often accompanied by concerns about one's ability to deal with problems if they arise (Ladouceur *et al.*, 1998) and a fear of failure (Meyer *et al.*, 1990). One of the greatest perceived benefits of social support thus appears to simply be the knowledge that others are there to help, that one is not alone, and that others care and "have your back", so to speak. Similarly, the simple knowledge or feeling that one is accepted and loved unconditionally, even in the case of failure, can go a long way towards alleviating worry. This finding is consistent with Feeney and Collins' (2015) conception of social support as a secure base or safe haven that provides feelings of safety, security and calm in the face of threat.

A second, closely related theme was a reduction in fear and a feeling of emotional relief. Fear is in many ways the underlying emotion behind worry (e.g. de Jong-Meyer *et al.*, 2009) Unallayed fear leads to chronic stress and many related problems. Support from others, it was reported, allowed participants to lessen their fears and relax. This relief comes partly from having an outlet to express emotions and worries and partly from the aforementioned knowledge that help, acceptance and forgiveness are available if needed. Again, the presence of an emotional secure base provides the individual with a safe haven to which they can retreat when threatened. It provides a protected harbour within which the individual can recover and regroup. Such emotional recovery, or returning to non-threatened emotional states, is a key to regaining perspective and maintaining effective engagement with the world.

The third major theme that arose in our analysis was the role of social support in helping to reappraise situations, or to reorient thought patterns in a realistic and constructive way. Those who are prone to worry tend to focus on the negative, or on worst case scenarios (Rassin, 2007). Moreover, worry-related thoughts tend to be abstract and less tangible in nature (Stöber, 1997), sometimes making it difficult for worriers to clearly identify and address the source of their worry (Borkovec *et al.*, 1998). Participants reported that social support often helped them think in more practical terms and provided realistic perspectives. By grounding thought in concrete facts rather than possibilities, social support can help the individual break out of ruminative cycles and focus their attention on matters that can be dealt with.

The final major theme was similar to the previous point, that social support can facilitate effective problem-solving and

decision-making. An important component of worry is, as mentioned earlier, a feeling that one will not be able to cope adequately with problems; that one lacks the capability to solve problems if they arise (Ladouceur *et al.*, 1998). This lack of confidence is often accompanied by a fear of failure and an inability to make decisions. Those prone to worry often delay making decisions or dealing with problems out of fear of failure or making mistakes, thus leaving problems unaddressed and, paradoxically, leading to more stress and worry (Rassin, 2007; Stöber & Joormann, 2001b). Participants in this study reported that social support helped them feel more confident and motivated them to actively face challenges. In some cases, participants also reported receiving concrete assistance with problem-solving and decision-making (Lakey & Cohen, 2000; Thoits, 1982).

Helpful actions by support providers

The final objective of this study was to identify specific social support related behaviors that participants found helpful in alleviating their worry. Again, this involved a thematic analysis of open-ended responses. Support behaviors were classified in the same way as described earlier; first as lower-order concepts, then into higher order themes, and finally into broad categories (Table 4). In general, it was found that the support behaviors described by participants fell within three broad categories often described in the literature: *emotional support*, *tangible support* and *informational support* (House & Kahn, 1985). Thus, these same categories were used to classify the themes and concepts listed in Table 4. In a broad sense, the types of actions reported as helpful by these Malaysian participants and those from other cultural contexts were similar, indicating a certain universality in the experience of social support. Generally speaking, social support helps the individual *process* and *regulate* emotions; it provides practical help with specific problems, and it helps one to better understand the issues involved.

There also appear to be, based on the results from this study, aspects of support that are particularly relevant to the management of worry; in particular, the idea of showing unconditional acceptance and care for the person in distress often arose. Worry is, at its root, an expression of anxiety or fear of the unknown. Often, more than anything, the person who is worried wants to feel safe. They want to be reassured that things will be all right and that help is available if it is needed. Advice, ideas and guidance, and clarity of thinking have their time and place of course, but more than anything, participants in this study wanted to have their fears allayed; they wanted to feel safe and accepted.

Limitations and future studies

This study had numerous limitations. Although the ethnic composition of this sample was similar to Malaysia as a whole, in most other ways it was not representative. Due to limited resources, participants were recruited online using social media advertisements and snowballing techniques. This resulted in a sample that was much more highly educated than the population of Malaysia as a whole (e.g. 96% of this sample were college educated or above, compared to 42% of the broader population). They were also overwhelmingly female (71% female compared to 49% in the general population). A representative sample would need to include a broader swathe of educational/socioeconomic backgrounds as well as more men. To achieve this, data would need to be collected in several languages. The participants here were highly educated, so the use of English did not pose a problem. However, a

representative sampling process, in order to be more balanced, would need to recruit participants offline in a variety of geographical regions. This would require collecting data in Bahasa Melayu as well as other regional dialects.

These findings also suggest additional research. Given that anxiety has specifically been identified as a growing problem in Malaysia, future studies should investigate how social support specifically relates to anxiety. For example, studies could attempt to quantify the roles of social support identified here (e.g. emotional safe-haven, unconditional acceptance, support in cognitive reappraisal) and look at their correlations with standard anxiety measures. Measuring the degree to which each component role of social support specifically relates to mental health outcomes could help clarify the mechanisms involved in social support's salutary effects. Similarly, measuring these component roles of social support could be of use in developing and targeting future interventions.

Conclusion

This study, by looking at open-ended descriptions of participants' experiences with social support provides important insight into the ways in which social support can help the individual address life's challenges. For these participants, the greatest perceived benefits of social support were emotional. Feelings of security, comfort and being cared about were consistently reported as primary benefits of social support. Second to this was help in reassessing situations – seeing problems in a more practical way and separating facts from feelings.

Those who engage in worry are often insecure about themselves and their capability to handle threatening situations (Ladouceur et al., 1998). They want assurance that even if they fail, things will be okay and that they will not be abandoned. After this, of course, participants reported increases in confidence when given advice and guidance. And, they appreciated it when they were given practical advice about their strengths and weaknesses or errors in their thinking. Most important, however, most of our participants reported wanting to feel safe (e.g. Bonn, 2015; Bowlby, 1988). Just as a child, when afraid, might return to her caregiver for assurance and support, our participants, when feeling worried or anxious, experienced social support as a secure base to which they could return for comfort, safety, and reassurance.

Acknowledgements. This project received support from the Global Asia in the 21st Century Research Platform of Monash University. Project Code: E/EE/LTg_01/2018/01.

References

- Ahmad N., MuhdYusoff F., Ratnasingam S., Mohamed F., Nasir N.H., MohdSallehuddin S., ... Aris T. (2015). Trends and factors associated with mental health problems among children and adolescents in Malaysia. *International Journal of Culture and Mental Health*, *8*, 125–136.
- Antonucci T.C. and Israel B. (1986). Veridicality of social support: A comparison of principal and network members' responses. *Journal of Consulting and Clinical Psychology*, *54*, 432–437.
- Armstrong L., Wuthrich V.M., Knight A. and Joiner R. (2014). Worry and depression in the old and young: differences and mediating factors. *Behaviour Change*, *31*, 279–289.
- Babcock R., Malonebeach E., Hou B. and Smith M. (2012). The experience of worry among young and older adults in the United States and Germany: A cross-national comparison. *Aging & Mental Health*, *16*, 413–422.
- Barlow D.H. (1988). *Anxiety and Its Disorders: The Nature and Treatment of Anxiety and Panic*. New York, NY: Guilford.
- Barrera M. Jr. (1986). Distinctions between social support concepts, measures and models. *American Journal of Community Psychology*, *14*, 413–445.
- Basevitz P., Pushkar D., Chaikelson J., Conway M. and Dalton C. (2008). Age-related differences in worry and related processes. *The International Journal of Aging and Human Development*, *66*, 283–305.
- Bonn G. (2015). Primary process emotion, identity, and culture: cultural identification's roots in basic motivation. *Frontiers in Psychology*, *6*, 218.
- Borkovec T.D. (1988). Comments on "Worry as a phenomenon relevant to the elderly". *Behavior Therapy*, *19*, 381–383.
- Borkovec T., Ray D. and Stober W. (1998). Worry: A cognitive phenomenon intimately linked to affective, physiological, and interpersonal behavioral processes. *Cognitive Therapy and Research*, *22*, 561–576.
- Bowlby J. (1988). *A Secure Base: Parent-Child Attachment and Healthy Human Development*. New York, NY: Basic Books.
- Brewin C.R., Andrews B. and Valentine J.D. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*, *68*, 748–766.
- Brown T.A., Antony M.M. and Barlow D.H. (1992). Psychometric properties of the Penn State Worry Questionnaire in a clinical anxiety disorders sample. *Behaviour Research and Therapy*, *30*, 33–37.
- Büyükkayacı Duman N. and Kocak C. (2013). The effect of social support on state anxiety levels during pregnancy. *Social Behavior and Personality*, *41*, 1153–1164.
- Calvete E. and Connor-Smith J.K. (2006). Perceived social support, coping, and symptoms of distress in American and Spanish students. *Anxiety, Stress & Coping*, *19*, 47–65.
- Casale M., Wild L. and Kuo C. (2013). "They give us hope": HIV-positive caregivers' perspectives on the role of social support for health. *AIDS Care*, *25*, 1203–1209.
- Cohen S. (2004). Social relationships and health. *The American Psychologist*, *59*, 676–684.
- Cohen S. and Wills T.A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*, 310–357.
- Dam A., Boots L., Van Boxtel M., Verhey F. and De Vugt M. (2018). A mismatch between supply and demand of social support in dementia care: A qualitative study on the perspectives of spousal caregivers and their social network members. *International Psychogeriatrics*, *30*, 881–892.
- De Jong-Meyer R., Beck B. and Riede K. (2009). Relationships between rumination, worry, intolerance of uncertainty and metacognitive beliefs. *Personality and Individual Differences*, *46*, 547–551.
- Dugas M. and Koerner N. (2005). Cognitive-behavioral treatment for generalized anxiety disorder: Current status and future directions. *Journal of Cognitive Psychotherapy*, *19*, 61–81.
- Dugas M.J., Schwartz A. and Francis K. (2004). Intolerance of uncertainty, worry, and depression. *Cognitive Therapy and Research*, *28*, 835–842.
- Dwarswaard J., Bakker E.J., Staa A. and Boeije H.R. (2016). Self-management support from the perspective of patients with a chronic condition: A thematic synthesis of qualitative studies. *Health Expectations*, *19*, 194–208.
- Esbjörn B.H., Lonfeldt N.N., Nielsen S.K., Reinholdt-Dunne M.L., Somhøvd M.J. and Cartwright-Hatton S. (2015). Meta-worry, worry, and anxiety in children: Relationships and interactions. *Journal of Clinical Child & Adolescent Psychology*, *44*, 145–156.
- Feeney B.C. and Collins N.L. (2015). A new look at social support: A theoretical perspective on thriving through relationships. *Personality and Social Psychology Review*, *19*, 113–147.
- Field A.P. (2013). *Discovering Statistics Using IBM SPSS Statistics: And Sex and Drugs and Rock 'n' Roll* (4th ed.). Los Angeles, CA: Sage.
- Gillis M.M., Haaga D.A.F. and Ford G.T. (1995). Normative values for the Beck Anxiety Inventory, Fear Questionnaire, Penn State Worry Questionnaire, and Social Phobia and Anxiety Inventory. *Psychological Assessment*, *7*, 450–455.
- Golden J., Conroy R., Bruce I., Denihan A., Greene E., Kirby M. and Lawlor B. (2011). The spectrum of worry in the community-dwelling elderly. *Aging & Mental Health*, *15*, 985–994.
- Gonçalves D. and Byrne G. (2013). Who worries most? Worry prevalence and patterns across the lifespan. *International Journal of Geriatric Psychiatry*, *28*, 41–49.

- Hobfoll S.E. and Vaux A. (1993).** Social support: Social resources and social context. In L. Goldberger & S. Breznitz (Eds.), *Handbook of Stress: Theoretical and Clinical Aspects* (2nd ed., pp. 685–705). New York, NY: Free Press.
- Holt M.K. and Espelage D.L. (2005).** Social support as a moderator between dating violence victimization and depression/anxiety among African American and Caucasian adolescents. *School Psychology Review*, **34**, 309–328.
- House J.S. and Kahn R.L. (1985).** Measures and concepts of social support. In S. Cohen & S.L. Syme (Eds.), *Social Support and Health* (pp. 83–108). San Diego, CA: Academic Press.
- Hyde L.W., Gorka A., Manuck S.B. and Hariri A.R. (2011).** Perceived social support moderates the link between threat-related amygdala reactivity and trait anxiety. *Neuropsychologia*, **49**, 651–656.
- Institute for Public Health (2011).** *NHMS Report 2011, Volume II – Non Communicable Diseases*. Retrieved from <http://www.iku.gov.my/index.php/statistics/summary-of-nhms-report-on-disease-prevalence>
- Kawachi I. and Berkman L. (2001).** Social ties and mental health. *Journal of Urban Health*, **78**, 458–467.
- Koerner N., Mejia T. and Kusec A. (2017).** What's in a name? Intolerance of uncertainty, other uncertainty-relevant constructs, and their differential relations to worry and generalized anxiety disorder *. *Cognitive Behaviour Therapy*, **46**, 141–161.
- Kertz S., Bigda-Peyton J., Rosmarin D. and Björgvinsson T. (2012).** The importance of worry across diagnostic presentations: Prevalence, severity and associated symptoms in a partial hospital setting. *Journal of Anxiety Disorders*, **26**, 126–133.
- Ladouceur R., Blais F., Freeston M. and Dugas M. (1998).** Problem solving and problem orientation in generalized anxiety disorder. *Journal of Anxiety Disorders*, **12**, 139–152
- Lakey B. and Cohen S. (2000).** Social support theory and measurement. In S. Cohen, L. Underwood and B. Gottlieb (Eds.), *Social support measurement and intervention: A guide for health and social scientists* (pp. 29–52). New York, NY: Oxford University Press.
- Lakey B. and Cronin A. (2008).** Low social support and major depression: Research, theory and methodological issues. In K.S. Dobson and D. Dozois (Eds.), *Risk Factors for Depression* (pp. 385–408). San Diego, CA: Academic Press.
- Lakey B. and Orehek E. (2011).** Relational regulation theory: A new approach to explain the link between perceived social support and mental health. *Psychological Review*, **118**, 482–495.
- Lindesay J., Baillon S., Brugha T., Dennis M., Stewart R., Araya R. and Meltzer H. (2006).** Worry content across the lifespan: An analysis of 16- to 74-year-old participants in the British National Survey of Psychiatric Morbidity 2000. *Psychological Medicine*, **36**, 1625–1633.
- Llera S.J. and Newman M.G. (2011, August).** *An experimental examination of emotional avoidance in generalized anxiety disorder: Data supporting a new theory of emotional contrast avoidance*. Paper presented at 119th Annual Convention American Psychological Association, Washington, DC.
- Ma G.Y.K. and Mak W.W.S. (2016).** Caregiving-specific worry, affiliate stigma, and perceived social support on psychological distress of caregivers of children with physical disability in Hong Kong. *American Journal of Orthopsychiatry*, **86**, 436–446.
- Meyer T., Miller M., Metzger R. and Borkovec T. (1990).** Development and validation of the Penn State Worry Questionnaire. *Behaviour Research and Therapy*, **28**, 487–495.
- Molina S. and Borkovec T.D. (1994).** The Penn State Worry Questionnaire: Psychometric properties and associated characteristics. In G.C.L. Davey & F. Tallis (Eds.), *Worrying: Perspectives on theory, assessment, and treatment* (pp. 265–283). New York: Wiley.
- National Institute of Mental Health (NIMH). (2016).** Generalized anxiety disorder: When worry gets out of control. Retrieved from <https://www.nimh.nih.gov/health/publications/generalized-anxiety-disorder-gad/index.shtml>
- Newman M., Llera S., Erickson T., Przeworski A. and Castonguay L. (2013).** Worry and generalized anxiety disorder: A review and theoretical synthesis of evidence on nature, etiology, mechanisms, and treatment. *Annual Review of Clinical Psychology*, **9**, 275–297.
- O'Connor E., Longman H., White K. and Obst P. (2015).** Sense of community, social identity and social support among players of massively multiplayer online games (MMOGs): a qualitative analysis. *Journal of Community and Applied Social Psychology*, **25**, 459–473.
- Potvin L.A., Brown H.K. & Cobigo V. (2016).** Social support received by women with intellectual and developmental disabilities during pregnancy and childbirth: an exploratory qualitative study. *Midwifery*, **37**, 57–64.
- Powers C., Wisocki P. and Whitbourne S. (1992).** Age differences and correlates of worrying in young and elderly adults. *The Gerontologist*, **32**, 82–88.
- Rassin E. (2007).** A psychological theory of indecisiveness. *Netherlands Journal of Psychology*, **63**, 1–11.
- Robichaud M., Dugas M.J. and Conway M. (2003).** Gender differences in worry and associated cognitive-behavioral variables. *Journal of Anxiety Disorders*, **17**, 501–516.
- Rueger S.Y., Malecki C.K., Pyun Y., Aycock C. and Coyle S. (2016).** A meta-analytic review of the association between perceived social support and depression in childhood and adolescence. *Psychological Bulletin*, **142**, 1017–1067.
- Salzer S., Stiller C., Tacke-Pook A., Jacobi C. and Leibing E. (2009).** Screening for Generalized Anxiety Disorder in inpatient psychosomatic rehabilitation: pathological worry and the impact of depressive symptoms. *Psychosocial Medicine*, **6**. doi:10.3205/psm000058
- Sarason I.G., Sarason B.R., Shearin E.N. and Pierce G.R. (1987).** A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships*, **4**, 497–510.
- Scott E.L., Eng W. and Heimberg R.G. (2002).** Ethnic differences in worry in a nonclinical population. *Depression and Anxiety*, **15**, 79–82.
- Seeman T.E., Lusignolo T.M., Albert M. and Berkman L. (2001).** Social relationships, social support, and patterns of cognitive aging in healthy, high-functioning older adults: MacArthur studies of successful aging. *Health Psychology*, **20**, 243–255.
- Stanley M., Beck J. and Zebb B. (1998).** Psychometric properties of the MSPSS in older adults. *Aging & Mental Health*, **2**, 186–193.
- Stöber J. (1997, November).** *Worry and problem elaboration: Reduced concreteness and imagery for worrisome topics*. Paper presented at the annual meeting of the Association for the Advancement of Behavior Therapy, Miami, FL.
- Stöber J. (1998).** Reliability and validity of two widely-used worry questionnaires: Self-report and self-peer convergence. *Personality and Individual Differences*, **24**, 887–890.
- Stöber J. and Joormann J. (2001a).** A short form of the Worry Domains Questionnaire: Construction and factorial validation. *Personality and Individual Differences*, **31**, 591–598.
- Stöber J. and Joormann J. (2001b).** Worry, procrastination, and perfectionism: Differentiating amount of worry, pathological worry, anxiety, and depression. *Cognitive Therapy and Research*, **25**, 49–60.
- Tabachnick B.G. and Fidell L.S. (2013).** *Using multivariate statistics* (6th ed.). Boston, MA: Pearson Education.
- Tallis F., Davey G.C.L. and Bond A. (1994).** The Worry Domains Questionnaire. In G.C.L. Davey & F. Tallis (Eds.), *Worrying: Perspectives of Theory, Assessment, and Therapy* (pp. 285–297). New York: Wiley.
- Tallis F., Eysenck M. and Mathews A. (1992).** A questionnaire for the measurement of nonpathological worry. *Personality and Individual Differences*, **13**, 161–168.
- Tan S.C., Bonn G.B. and Tam C.L. (2018).** Feeling better or worse? The lived experience of non-suicidal self-injury among Malaysian university students. *Asia Pacific Journal of Counselling and Psychotherapy*, **10**, 3–20.
- Thoits P. (1982).** Conceptual, methodological, and theoretical problems in studying social support as a buffer against life stress. *Journal of Health and Social Behavior*, **23**, 145–159.
- Valliant G. (1977).** *Adaptation to Life*. New York: Little, Brown & Company.
- Waters E.A., Liu Y., Schootman M. and Jeffe D.B. (2013).** Worry about cancer progression and low perceived social support: Implications for quality of life among early-stage breast cancer patients. *Annals of Behavioral Medicine*, **45**, 57–68.
- Wells A. (1995).** Meta-cognition and worry: A cognitive model of generalized anxiety disorder. *Behavioural and Cognitive Psychotherapy*, **23**, 301–320.

- Wills T.A. (1991).** Social support and interpersonal relationships. In M.S. Clark (Ed.), *Review of personality and social psychology* (vol. 12, pp. 265–289). Thousand Oaks, CA: Sage.
- Wisocki P., Hunt J. and Souza S. (1998, July).** *The experience of the worry process by elderly chronic worriers.* Paper presented at the meeting of the World Congress of Cognitive and Behavior Therapies, Acapulco, Mexico.
- Wong C., Sultan Shah Z., Teng C., Lin T., Majeed Z. and Chan C. (2016).** A systematic review of anxiety prevalence in adults within primary care and community settings in Malaysia. *Asian Journal of Psychiatry*, 24, 110–117.
- Wongpakaran T., Wongpakaran N. and Ruktrakul R. (2011).** Reliability and validity of the multidimensional scale of perceived social support (MSPSS): Thai version. *Clinical Practice and Epidemiology in Mental Health*, 7, 161–166.
- Zimet G.D., Dahlem N.W., Zimet S.G. and Farley G.K. (1988).** The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52, 30–41.