The Structure of Adult Students' Worries

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This study investigated the structure of adult students' worries. Students (N = 309) enrolled in advanced undergraduate and graduate university courses were administered the Student Worry Scale. A factor analysis revealed three factors of student worries: worries about living conditions, esteem-related worries, and world-related worries. Worries varied somewhat by developmental level. Younger students were more worried about living conditions and how they were regarded, while older students were more worried about the state of the world.

Worry has been defined as a commonly experienced sequence of unpleasant thoughts (Borkovec, 1985). Research involving university students suggests that worry is especially prevalent among this population. For instance, Tallis, Davey, & Capuzzo (1994) reported that 38% of students in their study reported worrying everyday and 72% endorsed worrying at least once a month. Because worry has been determined to be a common experience, there has been an increased interest in understanding this phenomenon. Primarily, worry research has progressed in two directions: 1. understanding the traits and characteristics of individuals who worry often and 2. understanding the structure, or categories, of worry content.

With regards to the first line of research, findings suggest that individuals who worry often, compared to those who worry less often, tend to report a number of unpleasant experiences including general anxiety (Borkovec, Robinson, Pruzinsky, & DuPree, 1983), several forms of physical discomfort (Jung, 1993), a tendency to experience more boredom (Kelly & Markos, 2001), difficulties with time-management (Kelly, 2003a), depression (Starcevic, 1995), poor problem-solving confidence (Davey, 1994), perfectionism (Chang, 2000), sleep disturbance (Kelly, 2003b), less tolerance for unstructured activities (Dugas, Gosselin, & Ladouceur, 2001), less life satisfaction (Paolini, Yanez, & Kelly, 2006), and heightened self-consciousness (Pruzinsky & Borkovec, 1990). Overall, it appears that individuals who are apt to worry are less psychologically healthy and engage in some behaviors which

could be self-defeating, such as not structuring time well, being overly self-critical, and attempting to perfect most aspects of their lives.

Compared to our knowledge of worriers' characteristics, relatively little is known about the structure of worry content. Tallis, Eysenck, and Mathews (1992) investigated domains of worry content in a general population sample. They found six clusters of worries. These were: 1. worries about relationships, 2. worries about one's confidence, 3. worries about purpose in their future, 4. worries about work, 5. financial worries, and 6. worries about society and the environment.

One of the few studies which throughly examined worry content among student populations was conducted by Boehnke, Schwartz, Stromberg, and Sagiv (1998). Boehnke et al. factor analyzed several topics of worry content and found evidence of two primary worry structures. These were: micro worries, which included worries about threats or potential threats to the self or individuals close to oneself, and macro worries, which included worries about the state of the society and environment. They theorized that macro worries were more healthy; whereas, micro worries were associated with unpleasant psychological experiences.

Aside from the Boehnke et al. (1998) study, little is known about the the structure of worry among students. Indeed, because the Boehnke et al. study was carried-out on a more "traditional," young undergraduate student population, even less is known about the worries of older adult students. With the increased emphasis on adult education over the past several years, to provide a better educational experience for more mature students, it would seem important to understand their characteristics and concerns. The purpose of this study, therefore, was to examine the structure of worry content among an adult student population.

Method

Participants

Participants included 309 university students (216 females and 92 males, one did not identify gender) enrolled in several upper and lower level undergraduate psychology and human services courses and graduate counseling courses at a large, urban public university in the Southwest United States. The average age of the sample was 30.7 years (SD = 11.6), ranging from 18 to 68. The median age of the sample was 26.

Instrument

Worry was assessed using the 10-item Student Worry Scale (SWS; Davey, Hampton, Farrell, & Davidson, 1992). The SWS measures "how much they [respondents] worry about 10 content areas relevant to students" (Davey, 1993, p. 53). These areas include academic, financial, living accommodations, health, job prospects, world affairs, personal relationships, religious matters, how they are perceived by others, and environmental matters. Davey et al. developed the SWS by conducting a content analysis of worry topics reported by a small sample of students.

Responses to the SWS are based on a 4-point scale ranging from 1 = "almost never" to 4 = "almost always." A total worry score is obtained by summing responses to all items. Scores can range from 10-40. Higher scores indicate more worry.

Reliability of the SWS has been reported only as internal consistency, which has been estimated from .68 to .81 (Davey, 1993; Davey et al., 1992; Kelly 2003a). Validity of the SWS is evidenced by its correlations with other worry scales and hypothetically related variables. For instance, the SWS strongly correlates with a general tendency to worry (Davey, 1993), trait anxiety (Davey et al., 1992; Russell & Davey, 1993), poor problem solving efficacy, feelings of responsibility for negative outcomes but not positive outcomes, and avoidance coping behaviors (Davey et al., 1992).

Procedure

After obtaining informed consent, participants were administered the SWS. A demographics survey which solicited information about participants' age and gender was also completed. Participants completed the questionnaires in group settings during regular class-times. Participation was voluntary and without compensation. Specific information regarding the nature of the study was not disclosed until participants returned the questionnaires.

Results

The mean, standard deviation, and Coefficient Alpha (internal consistency) of the total SWS in the current sample were 22.8, 5.4, and .77, respectively. To examine the structure of worry in the present sample, SWS items were subjected to a principal components factor analysis with a varimax rotation. This resulted in a three factor solution (using eigenvalues greater than 1) which accounted for 60.1% of the variance in responses. Factor 1 (eigenvalue = 2.4) accounted for 23.6% of the

variance. It included four items (a = .76) which seemed to measure issues important in attaining or maintaining adequate living conditions: worries about financial issues, living conditions, health, and employment prospects. This factor, therefore, was titled Living Condition Worries. Factor 2 (eigenvalue = 1.0) accounted for 20.0% of the variance. It included four items (a = .67) which seemed to measure issues important in attaining or maintaining esteem (regard for self from one's own or others' perspectives): worries about academic, relationships, religious, and people's thoughts of me. Thus, this factor was termed Esteem Worries. Factor 3 (eigenvalue = 1.7) accounted for 16.6% of the variance. It included two items (a = .64) which seemed to reflect issues pertaining to the state of the world and environment: worries about world affairs and the environment. It was, thus, titled World Worries. Item content and factor loadings are presented in Table 1.

Table 1: Item Content and Factor Loadings for Student Worry Scale Items

Item Content	Factor Loadings		
	Living Conditions	Esteem	World
1. Financial	.72		
3. Living conditions	.82		
4. Health	.73		
5. Employment prospects	.69		
2. Academic		.76	
7. Relationships		.66	
8. Religious		.65	
10. People's thoughts of me		.64	
6. World affairs			.83
9. The environment			.80

Note: N = 309. These are representations of the items' content, not the items themselves. The reader is referred to Davey et al. (1992) for

exact item content.

Because the sample included a wide range of ages, the possible developmental course of these worries was explored. First, Pearson correlations were calculated between age and SWS total and factor scores. Age significantly (two-tailed) correlated with total SWS scores, r = -.20, $p < .001$, Esteem Worries, r = -.35, $p < .001$, World Worries, r = .22, $p < .001$, and Living Condition Worries, r = -.12, $p < .05$.

Second, to investigate the unique contributions of the SWS factors to age, a hierarchical multiple regression was calculated. Age was used as the criterion and total scores for each of the three

SWS factors were simultaneously entered as predictors on Step 1. As a block, the SWS factors accounted for a strong 22% of the variance in age. This result was significant, F (3, 303) = 28.2, p < .0001. An inspection of the within groups predictors revealed that Living Condition Worries did not account for significant unique variance in age (t = -.36, $p = .72$, ß = -.02). However, Esteem Worries (t = -7.4, $p < .0001$, ß = -.42) accounted for significant unique variance in age. The beta weight revealed a negative relationship. Thus, younger students were more worried about esteem-related issues than older students. Also, World Worries (t = 6.1, $p < 0001$, ß = .32) accounted for significant unique variance in age. As indicated by the positive beta weight, older students were more worried about world and environmental matters than younger students.

Discussion

The results of this study suggest that university students' worry content, as measured by the SWS, can be categorized into three domains: worries about living conditions, esteem, and the condition of the world. These results are somewhat consistent with previous research findings that students' worries can be placed into categories of worries about the self and about the state of society (Boehnke et al., 1998). The current research, however, found that students' worries about themselves are separable into worries about living conditions and how they are regarded. In the Boehnke et al. study, these latter two domains of worry appear to have combined under their micro worries factor. This is an interesting difference between these two studies considering that the measurement device used by Boehnke et al. did include items which included both esteem and living condition issues. Perhaps the present study's inclusion of more mature students partially accounts for this difference.

Also of interest in the present study was the finding of developmental differences in worries. Older students, worried significantly less than their younger counterparts. This was especially true regarding esteem-related worries. However, older
students worried significantly more about the state of the world. These findings might partly be explained using developmental theory.

Erikson (1950, 1968) suggested that individuals progress through a series of developmental stages as they age and accumulate life experiences. The age-range of the sample in the current study indicates that most participants would have been in the Identity versus Identity Confusion (usually adolescence up to about age 20), Intimacy versus Isolation (usually associated with early adulthood, i.e., the 20 - early 30's age range), and Generativity versus Stagnation (usually associated with middle adulthood, i.e., the 40's - 50's age range). In the Identity versus Identify Confusion stage, a primary challenge is for individuals to explore different roles, discover "who they are," and develop some sense of their future goals. The Intimacy versus Isolation stage largely involves developing close relationships with others and sometimes a pre-occupation with these relationships. Finally, a primary focus of the Generativity versus Stagnation stage is making a contribution to the community and society as a whole; or put another way, to leave the world a better place for future generations. Given this context, Erikson's stages provide some understanding the worries associated with different age ranges in the present study. For instance, the finding that younger students worried more about esteem needs and to some extent living conditions is reasonable. Living conditions and esteem worries included such elements as relationships, religious concerns, others' views of them, academic concerns, and employment prospects. These are all areas which seem to fall within the more self-focused scope of Erikson's Identity versus Identity Confusion and Intimacy versus Isolation stages. In these stages individuals would likely worry more about discovering their identities with regards to religious preferences, academic and employment choices, and developing relationships. Older students' higher worry scores for world-related worries, which includes world affairs and the environment, would seem to correspond with Erikson's Generativity versus Stagnation stage. In this stage individuals would likely worry more about the greater good of society and the environment as well as trying to improve the conditions of these aspects for future generations. Additional research is needed, of course, to test these possibilities.

Caution should be exercised in generalizing from the present study to other samples of adult students. One area of caution regards the

use of the measurement in this study. The SWS, while reliable and valid, is somewhat brief. Thus, it may not encompass all possible worries of students. Further, information regarding the ethnicity of students was not collected. It is possible that the worries of students from different cultural groups would be structured differently.

Conclusion

In conclusion, the findings of the current study suggest that adult university students worry about three primary content domains. The amount individuals worry about these domains appear to be related to their developmental stage. Although the findings are limited, these results provide educators and counselors with an awareness of the concerns of adult students. Counseling intervention programs and educational curricula might be focused and tailored specifically to the different worries of younger and older students in attempts to enhance their educational experiences.

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