

2008

Disgusted by food: Explanatory models of anorexia among young Taiwanese adults

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Disgusted by Food: Explanatory Models of Anorexia Among Young Taiwanese Adults

by

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A thesis submitted in partial fulfillment
of the requirements for the degree of
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Date of Approval:
June 25, 2008

Keywords: eating disorders, chinese, social constructionism, lay understandings, cultural models

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ABSTRACT

Anorexia as a nosological category has developed in a western context and is now being applied to people around the world. In order for researchers to know they are asking the right questions about AN as knowledge expands, it is important to understand what meanings Anorexia carries and how those meanings manifest locally. The present study to aid in that understanding by employing a mixed methods (survey and in-depth interviewing) research approach in answering the following question: In what ways are Taiwanese students' explanatory models of anorexia nervosa (AN) congruent with or different from professional understandings derived from the western Bio-medical perspective? In answering this question, this study first addresses the current state of research on anorexia as well as the recent findings from studies done in Asia. Subsequently, the findings of the present research address what are young, Taiwanese adults' notions of the causality of AN. In particular, the present research found that student explanations of AN are focused predominantly on two causal forces; namely, the desire to be thin or the inability to eat as a result of psychosocial pressure arising from some interpersonal interactions. Additionally, Taiwanese students also maintain that AN can be explained by other less common factors. For instance, significantly more males than females believed that AN could be explained by some physiological dysfunction in the anorectic person. This study seeks to contribute to the literature by examining how college-age Taiwanese understand and conceptualize AN; which in turn may help towards understanding how other research conducted among Chinese populations has produced findings that are incongruent with the expectations suggested by the western, biomedical model of anorexia nervosa. There is further need for cross-cultural research on AN including lay understandings. This should focus not only on the "accurateness" of lay models as has been the case with the majority of research on lay models of AN in the past, but future research should consider the appropriateness of current research and public health models that influence both research and policy.

Chapter One

Introduction

Consider for a moment the following situation: a young man in Taiwan sees a television news piece describing the near death of a famous western singer from a disorder that led her to self-starvation. A public service ad tells him that in the past few years some young girls in his own country also have begun engaging in extreme forms of “dieting” that have led to necessary hospitalizations. When he looks on the internet he finds a plethora of information on the “syndrome” he has heard called “*yanshi zheng*”; he reads that people with the problem lose a great deal of body weight yet maintain an intense fear of being fat.¹ But when he reads the labels on commonly used antacids and other stomach medicines, he finds “*yanshi zheng*” among indicated conditions. He could also find Chinese news websites informing him that Chinese medical records dating back 316 years describe the same phenomenon now called “*yanshi zheng*” but that there was not a systematic understanding of the problem, nor did it have a clinical name until thirty years ago.²

This is not an unlikely scenario in Taiwan today with the variety of information socially available on anorexia nervosa (AN), and one might expect that Taiwanese understandings of it would be multitudinous. In the following pages, I will suggest that among young, college-age Taiwanese there is less ambiguity than one might expect.

¹ <http://www.epochtw.com/8/1/3/74348.htm>

² http://www.taiwan-panorama.com/show_issue.php?id=200589408110c.txt&table=0&h1=%E5%81%A5%E5%BA%B7%E8%A3%9C%E7%B5%A6%E7%AB%99&h2=%E9%86%AB%E7%99%82&year=2005&month=8&list=1

The explanatory models they employ in understanding and describing AN are sophisticated, coherent, and can account for disordered eating on their island. The present research explores the ways in which such understandings differ from western, professional knowledge and may serve to explain some of the anomalies in cross cultural studies of AN. In particular, I will address how college-age Taiwanese explain and understand Anorexia etiologically. Past research has shown that mental distress is more likely to be expressed somatically among Chinese than American patients (A. Kleinman, 1980), a finding of particular importance when western physicians treat a Chinese patient for depression. Similarly, Anorexia as a nosological category has developed in a western context and is now being applied to people around the world. In order for researchers to know they are asking the right questions about AN as knowledge expands, it is important to understand what meanings Anorexia carries and how those meanings manifest locally. To accomplish, this I will first address the current state of research on anorexia as well as the recent findings from studies done in Asia. Then I will turn to the findings of the present study which present young, Taiwanese adults' notions of the causality of AN.

Anorexia nervosa is a psychiatric diagnosis listed in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, American Psychiatric Association. Task Force on DSM-IV, & Stat!ref electronic medical library, 2000) as well as the *International Classification of Diseases* (World Health Organization, 1992). DSM defines the disorder with the following criteria:

- A. Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g., weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected).
- B. Intense fear of gaining weight or becoming fat, even though underweight.
- C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.
- D. In postmenarcheal females, amenorrhea, i.e., the absence of at least three consecutive menstrual cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, e.g., estrogen, administration.)

Restricting Type: during the current episode of Anorexia Nervosa, the person has not regularly engaged in binge-eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas)

Binge-Eating/Purging Type: during the current episode of Anorexia Nervosa, the person has regularly engaged in binge-eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas) (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition 307.1 Anorexia Nervosa)

According to researchers, the group of behaviors and ideations that make up AN predominantly affect girls and young women (Walsh & Devlin, 1998) and can lead to serious health problems and death with mortality estimated anywhere from .3% to as high as 20% (Cummins, Simmons, & Zane, 2005).

The study of AN's etiology is something that has been researched for some time (for a theoretical review: (Garner, Garfinkel, & Bemis, 1982)), and has branched across disciplines and research methodologies. In the next section I will briefly summarize the research done on anorexia by dividing it into four sections; Epidemiological, Genetic, Risk Factor, and Socio-cultural research. I will follow with a section devoted to recent research conducted within Asia, with a focus on Chinese populations.

Chapter Two

Recent Anorexia Research in the West:

Epidemiological Research:

Ascertaining valid rates of AN has proven quite difficult due in large part to methodological problems surrounding population selection and case identification. Because there is an extremely low prevalence rate in the general population, it is necessary to study inconveniently large sample sizes (Wakeling, 1996). In addition, those with the disorder are likely to conceal the outward signs of their illness as much as they can.

In the past, researchers have depended on existing medical records when calculating rates, but this tends towards underestimation of both prevalence and incidence. Although diagnosed cases in hospital settings are reliable and precise, the search for community rates has required methodological ingenuity. Currently, the best solution to these problems is the two-stage screening method whereby a large population is initially screened for symptoms of AN using various scales (ie. Eating Attitudes Test, Eating Disorder Inventory) and final cases being determined after conducting clinical interviews: all of those defined as “at-risk” and a random sample of those defined as not-at-risk are interviewed to make the final assessment(Hoek & van Hoeken, 2003).

Fourteen studies done within the time frame of 1981-2002 have shown prevalence figures for AN that range from .2% to .9% with a prevalence average in the USA and Europe of .3%(Hoek & van Hoeken, 2003). The average age range in these studies was 14-20 years, which is the period considered to be of highest risk for developing the disorder. Interestingly, prevalence has been shown to be higher among study participants born after 1945 (Bulik et al., 2006), which raises the question of changing rates of incidence.

Besides the increase in referrals for eating disorders in general, researchers have been able to uncover gradual rises in the incidence of AN as documented by medical records of hospitals, psychiatric case registries, or records of care providers. Since there have been very few studies of AN within the general population, it is reasonable to assume that even the figures currently known are underestimations of community incidence. This is evinced by the variety of findings; Swedish hospital records from 75 years ago show an incidence of .01/100,000 population per year as opposed to 12 /100,000 population in the United States in the 1980's. A Finnish, twin cohort study found a much higher figure than any previous studies- 270 per 100,000 person-years (95% CI= 180-360) (Keski-Rahkonen et al., 2007). A review of studies showed an estimated increase among females aged 15-24 since the 1950's at a rate of 1.03 per 100,000 person years every calendar year(Hoek & van Hoeken, 2003), and the consensus seems to point to an rising rate.

Genetic Research:

Twin studies have shown that monozygotic twins (genetically identical) have been found to develop AN at half the rate (10% vs. 22% concordance rates for AN) of their dizygotic counterparts, which is not supportive of a genetic causality.

These twin studies have indicated, however, that AN aggregates in families, leaving the relationship between biology and environmental factors unanswered (Walters & Kendler, 1995). Interestingly, other twin studies have found that girls who had been hospitalized for AN treatment were also three times as likely also to be girls whose gestational age had lasted 32 weeks or less (Striegel-Moore & Cachelin, 2001). Given such intriguing findings, researchers believe there is still a strong need for research examining both the biological and social/environmental correlates of AN.

Risk Factor Research:

Studies investigating risk factors for AN have been primarily cross-sectional and have found a dose-response effect whereby the odds-ratios for developing AN increased linearly with risk factors (Striegel-Moore & Cachelin, 2001). Stated otherwise, fewer measured risk factors correlated with lower disease prevalence within the population studied while higher numbers of risk factors increased odds ratios. Most studies of risk can be discussed in terms of biological, psychological, and social domains, but these factors interact in complex ways that point to a multifactoral etiology. Researchers have focused on every conceivable detail ranging from temperature at conception to “negative emotionality”(Steiner et al., 2003).

There are some risk factors on which there is general agreement. Already mentioned is the fact that it aggregates in families(Bulik et al., 2006; Schmidt, 2003)and it has been found that premature birth (OR 1.9) and complications during delivery (cephalhematoma; OR 1.9) also increase risk of developing AN (Lindberg & Hjern, 2003).

While the disorder is more common in children whose families are in a higher socioeconomic group(Lindberg & Hjern, 2003), having parents with psychiatric problems (including AN) and experiencing foster care before age 13 also contribute to the psychosocial risks associated with the onset of AN (Lindberg & Hjern, 2003; Steiner et al., 2003; Striegel-Moore & Cachelin, 2001). Being teased about physical appearance also has been investigated in the context of other eating disorders, which contributes to the discussion on the sociocultural aspects within which AN might develop (Jackson, Grilo, & Masheb, 2002). One risk factor in particular has predominated research and has found its way into the DSM criteria for the disorder: body dissatisfaction that grows out of the feeling of not meeting some cultural beauty norm(Katzman & Lee, 1997; Steiner et al., 2003; Striegel-Moore & Cachelin, 1999; Striegel-Moore & Cachelin, 2001).

The socio-cultural model:

The sociocultural model of eating disorders(Striegel-Moore, Silberstein, & Rodin, 1986), originally intended to explain gender differences in the prevalence of eating disorders in the USA, has maintained that the social pressures regarding ideals relating to body image and the extent to which they are important to female gender roles and social success are the primary causal force behind anorexia. The suggestion of this approach is that culture or certain sociocultural factors are pathogenic.

Studies in the past two decades seem to favor the socio-cultural model in its explanations as to why some women develop eating disorders, which has in turn led to other research on the pervasiveness of thin-body ideals in the west and the influences of media on body image. One of the results evolving out of such research is the fascinating variable of “acculturation” that has shown up in cross-sectional population surveys (The American International Relations Survey {AIRS; (Sodowsky & Plake, 1991)}, Sociocultural Attitudes Toward Appearance Questionnaire {SATAQ; (Heinberg, Thompson, & Stormer, 1995)} and the acculturation scale, SL-ASIA (Suinn, Rickard-Figueroa, Lew, & Vigil, 1987) are examples of such measures (Striegel-Moore & Cachelin, 2001)). This approach has grown directly out of the claims being made in the 1980’s and early 1990’s that the occurrence of AN is something of a western phenomenon. Only fifteen years ago, for example, the claim was made by researchers that AN was “virtually unheard of in China” (Condit V. K. Anorexia nervosa: levels of Causation. *Human Nature* 1, 395, 1990. Quoted by (Lee, 1995)). Anorexia has often been called a Culture Bound Syndrome, considered to be extremely rare outside a handful of “western” countries.

By measuring acculturation levels, researchers have attempted to estimate the extent to which young women from other cultural backgrounds have adopted American social values (Davis & Katzman, 1999; Stark-Wroblewski, Yanico, & Lupe, 2005).

The finding from such studies is that social values regarding beauty ideals and body image have a direct relationship with the experiences of young women regarding their eating behaviors, and it is for this reason that issues surrounding body image have played so heavily into Risk Factor research. Whether or not this same relationship holds in non-western populations is of particular importance. Research to date has helped shed light on the complexity that comes with trying to explain etiology. Genetics, fetal environment, childhood exposure to stress, chronic stressors and a host of other factors have been under scrutiny. Perhaps as a result of what seems to be a multifactorial etiology, the socio-cultural model has been a dominant explanatory schema among western researchers. As with previous research regarding schizophrenia and depression, investigators have been looking at AN in cultural contexts outside of the USA and Europe with the hope that more can be gained in understanding what causes this health threat.

Chapter Three

Recent Research On Anorexia In Asia

Some research has emphasized that increased westernization does not necessarily lead to embracing of a thin-body ideal as is outlined by the adherents of the socio-cultural model of AN. While several studies (see Lee et al. 1996 b.) have suggested that among female, Chinese undergraduates, there is an element of body dissatisfaction similar to that found among their American counterparts, others have found that thinness and fatness can be seemingly unrelated to the eating behaviors of some “anorectics” (Hsu & Lee, 1993; Lee, Ho, & Hsu, 1993). In fact, many patients offer rationalizations for food refusal that do not include concerns for fatness or weight at all, but rather explain their behavior with physical reasons like bloating or loss of appetite (these are mentioned in DSM as being motivations for food refusal that disqualify a diagnosis of AN)(Lee et al., 1993; Lee, Lee, Ngai, Lee, & Wing, 2001). When there are comparable levels of body dissatisfaction and fat/weight concerns, however, they seem to fall on a gradient where the more rural groups tend to have less of a concern than do more urban ones. This was found when comparing female high school students in Hong Kong, Shenzhen, and rural Hunan(Lee & Lee, 2000). Clear gradients among differing populations like these are often interpreted as lending support to the sociocultural model of eating disorders; but as those authors point out, western ideals may play less of a role than other forces involved in societal modernization and change.

Because there have been no studies in East Asian that assess community wide rates of AN, only disparate information is available from research aimed towards particular at-risk groups. For example, students enrolled in high-school dance classes were compared to non-dance students in the same Taiwan school in 2003, showing higher rates of AN among dancers (.7% vs. .1%) (Tseng et al., 2007). A review of studies done in Hong Kong, Singapore, and China have yielded similar findings with rates ranging from 0%, to those that match what we find in the United States and Europe (Cummins et al., 2005)³, yet there are no large representative studies that assess prevalence or incidence by way of clinical interview and diagnosis. Large studies document the signs, symptoms, and associated features related to AN among participants (Huon, Qian Mingyi, Oliver, & Guanglan Xiao, 2002), but these might be able to help understanding of the disorder when combined with what is already known.

A study of 1,246 school girls (mean age, 15.76 years) from six cities from differing regions of China found 60% of participants to be underweight by western standards with surprisingly high rates of weight concern, purging, dieting and food refusal. Interestingly there were no identifiable cases of anorexia among severely underweight girls and only .2% of those underweight met criteria for a full DSM diagnosis (Huon et al., 2002). These kinds of findings, while surprising, are not unprecedented; others have documented Mainland Chinese with higher rates of body dissatisfaction yet lower rates of eating disorders than their Chinese American and white American counterparts.

³ Their review failed to include Huon, Gail F. 2002.

The same seemingly paradoxical findings have been found in India and Pakistan, Singapore and Hong Kong whereby surprisingly high levels of disordered eating attitudes and symptoms (most often measured by the scale, EAT-26), weight concern, and body dissatisfaction simply do not correlate with cases of AN and other diagnosable eating disorders (Cummins et al., 2005).

Chapter Four

Rationale and Questions of the Present Study

Rather than focus merely on body image and cultural, beauty ideals, it is necessary to examine what food refusal means locally. Psychiatry and the DSM are Etic approaches to human behavior and behavioral breakdown (Fabrega, 1992; Fabrega, 1993). The case of anorexia, as with other disorders that manifest across cultures, is one that has proven the need for Emic approaches that investigate the possibility that culture or certain sociocultural factors are pathoplastic; that is, the manifestation and course of certain mental disorders and their symptoms may be shaped and altered by cultural factors.

The potential insights and limitations of the sociocultural model of anorexia seem to be hinging on just this point. If we want to understand this particular disorder, we may need to consider that the “natural history” of the disorder is a “cultural history” (Littlewood, 2004) and that there are as many forms of it as there are different groups of people. Like so many other areas of psychiatric research and practice, knowledge is incomplete. The problem we face today is that there is almost no place on earth that has continued to make itself impregnable from western, cultural ideas whether it be through music, television, print ,or other media. This being the case, researchers have had to approach AN across cultures in a tedious way, looking at both lay perspectives on eating disorders as well as how patients understand their own experiences.

Our limited understanding of the circumstances under which AN manifests in societies outside the United States and Europe makes it important to develop an anthropology of this psychiatric problem insofar as AN is a western disease category being applied to non-western societies. If we hope to provide culturally meaningful health services, it is important first to have knowledge of the understandings people apply to their experiences and to the experiences of others in their shared cultural environment.

This study seeks to contribute to the literature by examining how college-age Taiwanese understand AN. This in turn may help towards understanding how other research conducted among Chinese populations has produced findings that are incongruent with the expectations suggested by the western, biomedical model of anorexia nervosa.

In particular, this study addresses the following question:

Question: *In what ways are Taiwanese students' explanatory models of AN congruent with or different from professional understandings derived from the western Bio-medical perspective?*

To accomplish this it will be necessary to answer two related questions: first, what are some of the general features pertaining to etiology in Taiwanese students' explanatory models of AN? Second, what roles do the concepts borrowed from western understandings and the socio-cultural model (body image, body dissatisfaction, and fear of fatness) play in Taiwanese understandings AN?

Chapter Five

Methods

To answer these questions I have used a combination of quantitative and qualitative methods; this mixed methods approach consisted of a survey/questionnaire assessing student's perceptions as well as in-depth interviews.

The quantitative data are drawn from 384 written surveys that were self-administered in a central, major city in Taiwan. The surveys were completed in the summer of 2007 by upper-level undergraduate students at three different universities of technology in Taizhong County. Three professors, one from each institution, volunteered to inform students that a foreign visitor would be looking for participants to complete a survey of student opinions about *Yanshi Zheng*. I prepared an introduction to the purpose of the survey explaining that it was anonymous and voluntary so that the professors could adequately inform those who wanted to participate. The surveys were administered and collected at the end of class period and took approximately 10-14 minutes for students to complete. Students ranged from 18 to 34 years of age.

The survey consisted mainly of items drawn from a questionnaire developed by Sing Lee (a psychiatrist/anthropologist from the Chinese University of Hong Kong), which had been previously used to study lay perspectives of AN among university students in Hong Kong (Lee, 1997). After obtaining permission from Lee, I modified the questionnaire by adding questions pertaining to religious belief, ethnic identity, and geographical region of childhood.

I then translated it into Mandarin Chinese and had it back translated by a Chinese instructor from the University of South Florida. The survey consists of 75 questions graded on a five point, Likert-type scale ranging from “strongly disagree” to “strongly agree” The questions are divided into three main sections and are designed to elicit students’ understandings of the symptoms, etiology, and treatment for anorexia.

After completing all data collection for this study, I decided to limit the use of quantitative data only to the 29-item, Etiology section of the survey. The reason for this is twofold. First, the qualitative data suggest that students’ understandings of the symptoms and treatments of anorexia closely mirror western, professional understandings that can be found in the DSM and research literature, which also was the finding of Lee in Hong Kong when using the original survey(Lee, 1997). Second, the qualitative data proved to be more interesting and diverse, especially with regard to the question of student’s explanatory models of etiology, which is the focus of the present study. For these reasons, I have chosen to use the quantitative data to map the field with regard Taiwanese students’ explanatory models of the causes of AN while drawing more heavily from qualitative data in order to gain a more in-depth understanding of how they explain and account for AN as a phenomenon.

Qualitative data consist of 27 in-depth interviews from a sample of students completing questionnaires who volunteered to be interviewed. The interview sample consisted of 18 women and 19 men ranging form 18 to 34 years of age. Interviews were conducted predominantly in Chinese unless the students chose to use English; each interview took place outside of class and lasted from 1.5 to 2.5 hours.

While issues of symptoms, etiology, and treatment for AN were addressed at some point in the discussions, participants chose to focus predominantly on etiology. The interviews were largely unstructured with the exception that all interviews contained four questions that served to introduce topics of interest.

The questions are as follows:

- 1.) “Have you ever heard the term ‘*Yanshi Zheng*’, and if so what does it mean to you?”
- 2.) “What do you think is the cause or causes of ‘*Yanshi Zheng*’?”
- 3.) “What do you think are the symptoms or evidence that someone has ‘*Yanshi Zheng*’?”⁴
- 4.) “Are there successful ways to help resolve ‘*Yanshi Zheng*’; if so, what are they?”

Interview data were analyzed with a grounded theory approach, which is a strategy for analyzing qualitative data (Denzin & Lincoln, 2000; Glazer & Strauss, 1967) . Rather than beginning with theoretical suppositions, this approach develops theoretical considerations from the data as possible. Data are not forced into pre-existing categories, but categories are formed from data. I paid careful attention to the choice of language that participants made especially when different Chinese choices are possible. Thematic coding of interviews facilitated understanding of conceptual similarities within and between interviews in such a way that ideas held in common can begin to emerge.

⁴ Chinese grammar requires the use of the transitive verb, “have”.

In addition to the in-depth interviews, the findings of this study are also indirectly informed by informal conversations with numerous Taiwanese people of varying ages and backgrounds. Also, I have lived and studied in Taiwan for over three years with the unique opportunity of seeing first hand what kind of information is publicly available on AN through various forms of media. Particularly in the summer of 2007, I spoke with many people that I met in diverse social contexts with the goal of encouraging them to talk about anorexia as they understood it.

The procedures for both types of research methods used in this project were reviewed and approved by the Institutional Review Board of the University of South Florida. Written, informed consent was obtained from all participants in this study.

Chapter Six

Findings

Quantitative measures:

Survey response data were coded using the following scale: “strongly agree” or “agree” = 1; all other responses were coded as “0”. An account of the frequencies of agreement with respect to each survey item is listed in descending order in Table 1. These frequencies give a general overview of the extent to which participants found each survey item to be a possible explanation as to the cause of AN.

**Table 1: Percentage of Respondents Agreeing with Statements
About the Causes of Anorexia**

How much do you agree or disagree that each of the following items is a cause of anorexia?	<i>Total</i>
Mental strain/pressure	89.06%
Fear of Fatness	84.11%
Stress related to work/career	83.59%
Mental Problems	82.29%
Influence from foreign standards about the definition of beauty	77.34%
Academic pressure or failure	76.30%
Emotional experience that was very difficult to manage	75.52%
Fastidiousness (with respect to eating habits)	72.66%
Chronic loss of appetite	70.83%
Physical disorder	68.49%
Loss of relatives or close friends	67.71%
Brain chemistry or brain dysfunction	60.68%
<i>Shenjing Shuairuo</i> (Neurasthenia)	59.64%
Throat discomfort making it difficult to eat	58.59%
Influence from the media	57.55%
Stomach bloating or stomach pain	57.29%
Previously fat	55.99%
Taiwanese attitudes favoring thinness	53.91%
Alienation from family	52.86%
Social Isolation (loneliness)	46.61%
Desire to gain attention from family/friends, etc.	41.67%
Reaction to a feeling of no control over life	40.62%
Overprotective family which affected development	32.03%
Genetic disorder	32.03%
Yin Yang imbalance	30.73%
Mental disorder	29.43%
Germ infection	27.86%
Influence from spirits or ghosts (entering the body, etc)	19.53%
Desire to control other people	10.42%

The original 77 item survey allowed for coding that could thematically organize responses around several conceptual categories.

The 29 item section on etiology covers three conceptual categories of explanation for the cause of AN: Physiological, Psychosocial Stress, and cultural norms pertaining to beauty (body image). Drawing from the 29 items listed in Table 1, each of these three conceptual categories was operationalized by either 5 or 6 questions with a scale that measured agreement (1) or disagreement (0) for each question. After summing the total agreement across all participants for each category, the sum was divided by the number of items in the respective categories to give mean agreement per conceptual category. Table 2 illustrates the questions used in defining each category.

Table 2: Three Conceptual Categories Derived from Survey

<p>Physiological Causes of AN:</p> <p>How much do you agree or disagree that each of the following items is a cause of anorexia?</p> <p>10.) Physical disorder 12.) Brain chemistry or brain dysfunction 14.) Throat discomfort making it difficult to eat 16.) Stomach bloating or stomach pain 24.) Genetic disorder 27.) Germ infection</p>
<p>Psychosocial Stress Related Causes of AN:</p> <p>1.) Mental strain/pressure 3.) Stress related to work/career 6.) Academic pressure or failure 7.) Emotional experience that was very difficult to manage 11.) Loss of relatives or close friends</p>
<p>Body-Image Related Causes of AN:</p> <p>2.) Fear of Fatness 5.) Influence from foreign standards about the definition of beauty 15.) Influence from the media 18.) Taiwanese attitudes favoring thinness 17.) Previously fat</p>

Table 3 contains a breakdown of participant agreement by conceptual category. The number of items that participants agree with per category as well as average number of items agreed with per category is shown.

Table 3: Participant Agreement per Item per Conceptual Category.

Number of items in conceptual category	Participants agreeing with items indicating: Physiological Causes	Participants agreeing with items indicating: Psychosocial Causes	Participants agreeing with items indicating: Cultural norms of Beauty/ Body Image Related Causes
0	33 persons 8.6%	28 persons 7.3%	9 persons 2.3%
1	47 persons 11.5%	33 persons 8.6%	10 persons 2.6%
2	80 persons 20.8%	49 persons 12.8%	34 persons 8.9%
3	84 persons 21.8%	71 persons 18.5%	93 persons 24.2%
4	76 persons 19.8%	96 persons 25%	145 persons 37.8%
5	56 persons 14.6%	107 persons 27.9%	93 persons 24.2%
6	28 persons 7.3%	NA	NA
Agreement with 3 or more items per category:	64%	71%	86%
Average number of Items agreed with across all participants:	.51	.66	.73

The figures in Table 3 depict the average levels of agreement that participants held with respect to each category's explanatory power in accounting for the cause(s) of AN.

These numbers suggest that participants are least likely to account for AN with physiological explanations, and they are most likely to agree that AN is caused by psychosocial stressors. Table 3 also illustrates that participants are often simultaneously able to agree with multiple, causal explanations at the same time, adding to the complexity of their beliefs.

The average number of items agreed with across all participants' for each respective, conceptual category was examined by gender to determine if there was a difference in agreement between genders. The within gender, average agreement with each conceptual category is illustrated in Table 4 below.

Table 4:

Within Gender Differences of Average Number of Items Agreed with per Conceptual Category Derived from the Survey.

	gender	N	Mean	Std. Deviation
Body-Image Concerns as Cause	Women	173	.7480	.28090
	Men	208	.5865	.31425
Physiologically Caused	Women	173	.4547	.27733
	Men	208	.5545	.27989
Psycho-Social Stress as Cause	Women	173	.7480	.23193
	Men	208	.7154	.23042

It can be seen from Table 4 that on average women agreed with 75% of the items that account for AN by causes related to body-image concerns, with a smaller average agreement (59%) upon items by men. Conversely, men agree with half of items that explain AN physiologically while there is less agreement (45%) from women. Participant agreement with items accounting for AN by psycho-social stress related causes was found to be 75% and 72% among women and men respectively.

An independent-samples t-test was conducted to examine within-gender differences in mean agreement with each of the three explanatory categories for AN between men and women. The test was significant with respect to the category of body-image related causes ($t= 5.2, p= .000$) and physiological cause ($t=3.4, p=.001$). The within-gender differences with respect to agreement with the psychosocial stress model was not significant. These results are summarized in Table 5 below.

Table 5:

Independent Samples Test of Mean Differences Comparing Within-Gender Agreement with Average Number of Items per Conceptual Category.

		t-test for Equality of Means					
		t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Body-image Related Causes	Equal variances assumed ⁵	5.237	379	.000	.16144	.10083	.22205
Physiological Causes	Equal variances assumed	-3.479	379	.001	-.09977	-.15616	-.04337
Psycho-Social Stress Related Causes	Equal variances assumed	1.371	379	.171	.03259	-.01417	.07935

The test shown in Table 4 suggests that Taiwanese woman are more likely to explain AN as being caused by cultural factors related to body image. Taiwanese men, on the other hand, are more likely to believe that AN is caused by some physiological malfunction in the person with anorexia.

⁵ Test results with equal variances not assumed differs by .04 or less for all figures in this table and significance is not affected.

With regard to psychosocial explanations for the causes of AN, there is no significant differences between Taiwanese men and woman. Among both genders, physiological explanations are the least supported followed by body image related causes. The most supported explanations are those that account for AN in terms of psychosocial stress, and this agreement is not different between genders.

Qualitative Findings:

The Lexical Understanding: Anorexia as Disgust

I have never met a Taiwanese person under 30 years of age who enjoyed being told that she/he had grown fatter. This was also true for all the participants in this study who individually told me that they prefer to hear from others that they were thinner than in the near or distant past. The reason this is interesting is because the traditional Chinese way of communicating to others that they appear healthy and successful is by telling them, “you’ve gotten fat!” To show concern for someone or their family’s health or financial situation, one would typically say, “you’re getting thin!” While people older than 40 still communicate this way, younger people almost never do. In this kind of contemporary social context, where young people prefer to hear that they are thin, the meaning of anorexia takes on a cultural significance.

As expectable, there is not an obvious homogeneity with regard to how Taiwanese explain anorexia. This can be made immediately clear from simply asking a few people what the meaning of the phenomenon is.

Two common explanations that one might encounter have to do with areas of Chinese culture about which there has been no shortage of either humor or serious discussion: appetite and weather. Rather than using terms like “hello!”, the Chinese traditionally have greeted each other with the phrase “ have you eaten?”, or more literally, “are you full?”. To the Chinese, those living in Taiwan not excluded, food and appetite make up an area of culture that is nothing less than an art form. The Chinese classical text *Dao De Jing* claims that no ruler will find a peaceful country without first having full bellies, and no business deal is really engaged until participants have eaten their full. Similar gravity is attached to cooking, where the Chinese believe that types of food must be diligently matched together so that the body is fully satisfied and adequately nourished. The same goes with the Chinese cultural view of weather, where terms describing weather conditions are simultaneously used to describe inner emotional states. It is surprising then that conversations with locals in any Taiwan city can lead to the concluding explanation that people who starve themselves simply do not want to eat, no longer having the appetite for which the Chinese are famous. Why don’t they have a “normal, healthy appetite”? Explanations vary, and the weather often comes into the discussion. The hot weather ruins their ability to eat, and they will get worse unless we “offer them cold dishes like cold noodles and allow their appetites slowly to return.”

When conversations run this kind of course, one wonders whether both parties are really talking about the same phenomenon; we use the same Chinese term that translates to “anorexia”, (厭食症; *yanshi zheng*- disgusted or hate/ food /illness)⁶ but in some cases it seems that only the lexical meaning of the term is communicated. One reason for this is that the Chinese term is a compound of words known to anyone with an elementary school level education. Most Americans probably do not know the Greek meaning of the term “anorexia” but rather know the term from popular culture. This is almost never the case with Chinese, however, since almost every native speaker will understand the etymology of each character even if they have not heard of the phenomenon before. For example, any native speaker can guess the meaning of 腦炎 (*naoyan*), but most Americans could not guess from the term “encephalitis” that the etymology refers to inflammation of the brain. As a result of this characteristic of the Chinese language, a Taiwanese person could speak with me about AN without addressing anything more than what is conveyed in the lexical meaning of the Chinese term: a kind of illness where people do not eat because they are disgusted by food. What is more common, however, is that someone will explain AN by giving synonymic explanations of the term and offering a reason for it.

⁶ Because this is the only Chinese term commonly used to refer to the English term Anorexia, I will hereafter use them interchangeably. Other Chinese terms are used professionally and add on the equivalent of “nervosa”, which in Chinese is actually the term for “neuro” (the full Chinese terms are: 神經性厭食症 -- *shenjing xing yanshi zheng* or 精神性厭食症- *jingshen xing yanshi zheng*).

For example, when the weather is blamed, it appears that the lexical meaning of the term for AN is being expanded with a meaningful account of how a person might come to experience the phenomenon of hating or being “disgusted by food”. In other words, the Chinese term, being neutral with regard to causation, is ripe for etiological explanation.

This difficulty highlights the importance of the role of language for cross-cultural research. In particular, it serves as a foundation for inquiry into how Taiwanese young people understand anorexia. The explanatory models are grounded in the Chinese language; the lexical meaning of AN serves as the organizing schema that can be “filled in” with particular cause-effect explanations that account for how people get to the state that they refuse food even to the point of death.

When looking particularly at young adults in Taiwan today, what does *Yanshi Zheng* mean beyond the mere lexical meaning? All of the participants in this study were familiar with this term and communicated unique features about it that explain it as a particular kind of health threat. Specifically, their explanatory models for AN are patterned into the meaning of the Chinese term, and the lexical meaning of *yanshi* as the “disgust/hate” for food is unpacked in mainly two forms. Both of these conceptual models for explaining AN are rooted in the anorectic’s not wanting to eat and disgust with food; in the first of these, disgust is an eventual *result* of not wanting to eat while in the second, disgust is an indirect *cause* of not wanting to eat.

While survey respondents indicated that they agreed with half of the items that account for AN in terms of physiological causes, interview participants never mentioned physiological causes for AN unless asked directly. For example most participants stated that parasites or gastrointestinal problems could conceivably lead to anorexia when I directly asked them. This may account for why the physiological items are the least supported on the survey. Additionally, if I directly asked whether AN could be caused by spirit or demonic possession, some participants stated that it is possible that some instances of AN may have such a cause. The predominant topics that surfaced in the interviews, however, were never initiated by me. The notions of AN as literally being “disgusted by food” in relation to body image concerns or psychological pressures were brought up and expounded on numerous times by those interviewed, and they proved to be the explanatory models that almost every participant held in common. It is to these major themes that I now turn.

“Disgust” as Result:

Only one interview concluded with the participant claiming that AN was unrelated to a desire for thinness⁷; all other participants stated that anorexia is related to a thin body ideal with a desperate pursuit of thinness that is almost always exclusively experienced by young women.

⁷ This man I call Fox is quoted in the next section.

One participant even self-reported that she been anorexic in the past as had a friend, and that her situation was one of body image, thinness, and dieting.

*Pei Chuan*⁸: “I also had this problem. Many girls have the same reason... they want a nice figure, I mean body shape.

Interviewer: “How do you know you had it?”

Pei Chuan: “I just wanted to lose weight and look good, not fat. And at first I would just eat less and maybe eat small things. It just keeps going and finally I lost a lot and wouldn't eat all day. It stops the periods [menstrual]. But now I don't have the problem”.

While a desire to be thin is only one feature of Taiwanese understandings of AN, it is an important feature that is believed to be sufficient to lead to the disorder. For most young Taiwanese, this means that many anorectic, young girls feel the strong need to “pursue a good (body) shape”, which is often associated with the desire to “attract males”. Some called this a “model ideal” (as in “fashion model”) whereby young girls are “worried about their weight” and are constantly afraid that they will be viewed as fat, something that I was told on more than one occasion.

Tom Yang: “People with this problem really want to become thin... they want to be like a model, especially to attract males, I mean, mostly to attract males. That is why it happens. They don't want to be fat and are always worried about their weight.”

Christy Xu: “I know, someone who wants to lose weight, especially girls. Sometimes my friends, especially if a guy tells them they are fat and need to lose weight... they maybe just drink and won't eat anything. And they sleep a lot; sometimes we worry about that.”

⁸ All participant names are changed. Many participants gave me English first names with Chinese last names. In those cases I will use similar names.

Jenny Fsu: *“Asian people like to be thin...it is related to European influence about thinness and prettiness. To be pretty one must be thin. More and more people say, for example, to be like models, or famous others, singers, and such, they say that it is better to look like thin. Today, many teenagers are like this too. They strive to be thin, so they work towards finding a method to let themselves grow thinner. Those methods are diverse; for example, they take medicines, exercise to lose weight, and eat only at vegetarian restaurants. Anyway, when they reduce the food it affects the stomach and changes their metabolism. They find that they want to eat something, but immediately feel uncomfortable in their stomachs and just throw up.”*

One young girl even mentioned that she believed that AN did not exist at all in Taiwan even ten years prior, and that it was a new phenomenon brought on by media, Japanese social norms, and western celebrity influence.

Jenny Chen: *“Some girls want to pursue a good shape, and they can't control themselves. Little by little they become crazy about it.... Maybe there isn't this kind of thin ideal in Africa , I think it has only been in Asia for about ten years.”*

Tan Yang: *. It is kind of recent. Maybe we didn't have this 100 years ago. It is in our cities, but maybe not in Africa at all.’*

While not everyone agreed with this time frame, all agreed that increasing social pressure on young women to have bodies approximating celebrities (Literally, “bright stars”) from across Asia and the United States has led young women to refuse food and engage in dangerous “dieting methods”, one of which is to *Yanshi*.

This was believed to be more common among those most “concerned with fashions”, those “spoiled” by wealth, or those who more readily embrace “social definitions of beauty”.

These descriptions of anorexia are congruent with the Socio-cultural model of eating disorders in explaining what gives rise to the phenomenon. They are not obviously compatible, however, with the lexical meaning of the Chinese term.

For this reason I intentionally asked all participants whether the term *Yanshi Zheng* was etymologically appropriate for the experiences of young women and girls that they were describing to me. For most westerners, the Chinese choice of lexical characters to denote anorexia seems inappropriate for the disorder; this is equally true for the Greek origins of our English, medical term.

When asked about AN, everyone without exception explained that Anorectics “don’t want to eat” (不想吃東西; bu xiang chi dong xi), but do they really “hate food” or are they really “disgusted by food”? One young man explained to me that “hate is after reaching a level of severity”. According to the Taiwanese understanding, these girls start out by wanting to be thin and must control their hunger; they do not hate food and are not disgusted by it, but gradually this becomes the case.

Interviewer: “So when people like your friend who develop *YanShi Zheng* after someone tells them they are fat, how do they feel when they see food?”

Christy Xu: “... If it comes from their wanting to lose weight they might want to eat food, but they have to stop thinking and seeing food.”

Interviewer: “To control themselves?”

Christy Xu: “Yes”.

Interviewer: “You mean they want to eat?”

Christy Xu: “Yes, in the beginning”

By forcing themselves not to eat, anorectics get to where they cannot.

Numerous explanations clarified that it is from prolonged food refusal that girls slowly become disgusted by the sight or thought of food with feelings similar to “food nausea in pregnancy”, which is the result of a conditioned physiological response is. For example “their stomachs are smaller and smaller until food becomes disgusting”.

One young woman explained:

Vicki: "... it could be when it first starts one says, 'I want to diet'. Like me maybe if I diet for a few days I just start to feel like I don't want to eat at all and it just gets more intense...Always thinking about something else and never think of eating also...Control themselves until they get to the point that when they see food they really don't want it, although at first they want to eat when they see food. But after days or weeks they change and lose the desire, then they just feel disgusted by it."

Employing this interpretation maintains the integrity of the term *Yanshi*, while also maintaining that the aversion to food can be explained as a consequence of the goal of weight loss. For some women, the thin body ideal is so strong that it becomes a fixation that gradually worsens with more increasing severity. The physiological effects escalate, personal perceptions become more distorted, food intake becomes increasingly less with time, and finally death becomes a real threat. According to this schematic understanding, AN is a slow psychological and physiological conditioning process that gets worse with time, results in a disgust with food, and can lead to loss of life.

The Role of Pressure: "Disgust" as Indirect Cause

While the experience of being "disgusted by food" is often described as a consequence of rigorous dieting, it is also described as an indirect cause of food refusal. Only one participant who explained AN in terms of a thin body ideal and subsequent dieting also went on to claim that she believed that it had nothing to do with any other kind of pressure other than that of being thin.

Liao wen-zi: "I think its about some girls who worry about their body weight. That is my first image. Then I think about some boys, maybe the same reason.. don't eat too much. At first I think this is girls. Maybe they just drink water or nutrition drinks, or drink soups. They do that... I think they, they want their body to match a standard. The standard body is from tv or some pictures... or media. They are afraid to be fat. Its not healthy, not natural. People don't want to be fat. Maybe they can use 'yanshi', this way to not eat food. They want to eat , but just don't because of their body. They want..other people, they want to make friends. They think its easier to make a girlfriend or boyfriend. They want other persons to call them beautiful. Their friends influence them. If their friends don't eat much, they wont either."

Conversely, the only participant who (mentioned in the previous section) claimed AN had nothing to do with diet or body image maintained that AN was strictly the result of other kinds of emotional/psychological pressures.

Interviewer: So you've heard of "yanshi zheng".
Fox: Ah ,Yes.. but none of my friends have this problem
Interviewer: When you hear this, what does it mean?
Fox: Don't want to eat
Interviewer Don't want to eat? Is that the meaning? Anything else? Why don't they want to eat?
Fox: I believe because of pressure.
Interviewer: What kind of pressure?
Fox: Um, maybe the pressure because of life, school , job.
Interviewer: When they see the food what do they feel?
Fox: No interest.
Interviewer: Can anything else cause this problem?
Fox: Um.. I think just pressure causes yanshi zheng. No other reason.
Interviewer: Your meaning is that this is not about losing weight?
Fox:well, that is not yanshi zheng

All other participants discussed anorexia both in terms of people's desires to be thin and as a product of what might be termed psycho-social stress, and with only one exception, everyone used the phrase "pressure is too great" (壓力太大; yali tai da) to account for certain instances of anorexia's onset.

One interviewee in particular mentioned that her own anorexia was not about body image or beauty, but was the result of pressures in her family and private life, while the anorexia of others may very well be brought on by a fear of fatness.

Lily lun: "My family is very poor and my father is very sick. That is why I moved here to work. The pressure is very heavy on me because I also have a child that lives with them. Because I feel so much pressure, that is why I have developed Yanshi zheng. I cannot eat at all. Sometimes I only eat some peanuts, or drink a broth. The food makes me feel sick now. I keep losing weight and Chang (a boyfriend) tells me to eat and not to lose weight. I just can't. That is all because of my life. I know if I don't change something it will kill me.

Interviewer: "did you ever try to lose weight?"

Lily: "No. Yanshi zheng is sometimes because people wanted to lose weight, but not always. It was never that for me. For some there is just too much pressure."

While pressure from society can be leveled on the individual arising out of beauty norms, it does not need to. This second feature of Taiwanese explanatory models of AN is unique because of its independence from the thin body ideal. While the thin body ideal was mentioned as a sufficient condition for AN in the previous section, "too much pressure" is viewed by Taiwanese as a necessary condition insofar as even the thin body ideal exists as a category of pressure. Pressure need not entail the thin body ideal, however, and this feature is what needs more explanation.

Other research on cultural differences in conceptual models of depression has documented how Chinese people use the notion of "thinking too much" (Karasz, 2005) to account for depression, which is not uncommonly comorbid with anorexia according to DSM. The same is also true with Taiwanese explanatory models of *Yanshi Zheng*. "Thinking too much" is among the most common explanations as to why people begin food refusal.

With regard to Taiwanese models of AN, thinking too much or ruminating over some responsibility or pressure (“pressure is too great”) can lead to the conditions that give rise to eating disorder. There are specific kinds of pressure to which Chinese are very sensitive: the expectations of parents weigh heavily, the stress of the Chinese examination system is extreme, and the social change and pressures experienced by young, new wives in a strongly patriarchal society are three types of strain often mentioned which are experienced by the at-risk age group. Other pressures believed to lead to eating disorder are break ups, job loss, or divorce (Chinese men rarely ever marry a divorcee, but the converse is not so).

Interviewer: “Where does it come...”

Jessica: “it is a kind of mental problem”

Interviewer: “But what is the cause?”

Jessica: “Broke up with boyfriend. .or have some trouble in your family. Maybe you lose your job.. or have a big stress from your boss. Divorces... Then people think too much. Oh, One more thing... maybe you want to do something perfect.”

Interviewer: “Its related to perfectionism?”

Jessica: “Yes”

Interviewer: “How? That is some kind of pressure?”

Jessica: “If you want to make something perfect that can cause a lot of pressure”

Interviewer: “That's for all people with ysz or some of them?”

Jessica: “Some of them”

The mechanism whereby “big pressure” and “thinking too much” lead to AN is described as appetite loss. The reason these young women do not want to eat is that a combination of anxiety and depression takes away their interest in food. Again, when asked whether this conceptual understanding is compatible with the etymology of *Yanshi Zheng*, Taiwanese will answer affirmatively.

While the explanatory model that employed the concept of a “thin body ideal” to account for AN suggested that women forced themselves not to eat only later to find that they could not, the “Pressure is too great” conceptualization works differently.

First women do not want to eat because they have no interest or appetite, and after the condition worsens they too find that they cannot eat. The initial loss of appetite also approximates the nausea of pregnancy eventuating in physiological inability to eat, sickness, and threat to life. The description of a thirty-year old woman named Viki summarizes the same ideas repeatedly expressed by all but two participants in such a representative way that I will allow more space for her comments in closing this section:

Interviewer: When you hear the term YSZ⁹ what does it mean?

Viki: Certainly that one is under too much pressure and then... well, one meaning is an internal factor; one is under too much pressure, or it could be the case, as an external factor that they want to change their body and want to diet. We can say that some people diet to excess

Interviewer: So dieting....

Viki: (interrupting; seems to think “so dieting” was a question) Not necessarily.

Interviewer: So some times it is stress related and sometimes not?

Viki: Stress is an internal factor but sometimes it is just external

Interviewer: You mean it can be divided into two types?

Viki: Yes, just intrinsic to the person and extrinsic.

Interviewer: Can you tell me what is the difference?

Viki: The beginning reason for why people get ysz is different.

Interviewer: So you mean...

Viki: (interrupts) it could be when it first starts one says, I want to diet, and then they lose a little weight. Like me maybe if I diet for a few days I just start to feel like I don't want to eat at all and it just gets more intense. Or it could be totally different. When it first starts it could be because ones psychological pressure is just too big and you just don't want to eat, maybe pressure from work or something ... and then you begin to become thin. And then much later on you really hate food, don't want it.

Interviewer: So, um... too much pressure and there is no appetite and one doesn't want to eat and it just gets worse.....

Viki: Always thinking too much about something else and never thinking of eating also. Maybe even they forget to eat.

Interviewer: What about people who develop ysz because they begin by wanting to lose weight

⁹ “YSZ” is short for *Yanshi zheng*, the Chinese term for Anorexia.

Viki: *In my thinking there are two kinds... one is because of pressure and one is to diet
When it is to diet, they control themselves until they get to the point that when they see food they really don't want it, although at first they want to eat when they see food. Maybe they start counting calories...So they really have to control themselves.
Yes they really control themselves strongly, but after days or weeks or months they change and lose the desire.*

Interviewer: *When the others see food they feel [pause] I mean the ones you said start because of stress...?*

Viki: *No desirous feelings. See it and feel like vomiting.. maybe feel full. People with anorexia see food and feel disgusting and want to vomit. Like sometimes in the summer, it is so hot out. When I see some piece of meat I feel it looks disgusting and I don't want it. It is like that.*

Interviewer: *Almost every Taiwanese person has told me this same idea.. Like pressure and dieting are two roads...*

Viki: *(interrupting) yes, two different roads that can converge on the same end point.*

Chapter Seven

Discussion

The purpose of this study has been to determine in what ways Taiwanese students' explanatory models of AN are congruent with or different from professional understandings derived from the western Bio-medical perspective. This purpose made it necessary to explore some of the general features pertaining to etiology in Taiwanese students' explanatory models of AN. One of the main goals of the study, therefore, was to consider what roles the concepts borrowed from western understandings and the socio-cultural model (body image, body dissatisfaction, and fear of fatness) play in Taiwanese understandings of AN. The socio-cultural model has been the predominant model used by western researchers in studying the causes, course, and outcomes for anorexia (Garner & Garfinkel, 1980; Garner, Olmsted, & Garfinkel, 1983; Schmidt, 2003; Striegel-Moore, Silberstein, & Rodin, 1986; Striegel-Moore & Cachelin, 1999; Striegel-Moore & Cachelin, 2001; Walsh & Devlin, 1998). Insofar as public health interventions are informed by research, it is important continually to examine variations in how people understand illness and its causes in order to develop the most culturally appropriate and effective approaches to prevention and care.

With respect to young Taiwanese adults, this study has found that local understandings are complicated and are not always congruent with western perspectives or the socio-cultural model of eating disorders. For instance, while there may be a host of peripheral explanations for AN, there are two major explanatory models for anorexia that Taiwanese young people seem to share in common that make up a cultural model of the disorder. The first of these is compatible with the socio-cultural model.

The second and most predominant understanding explains Anorexia in terms of psychosocial stress that leads to loss of appetite, eventual food refusal, and the eventual threat of death. This predominant understanding is consistent with past research among Chinese that found while westerners are more likely to experience psychological distress with psychological symptoms, Chinese people more often express psychological distress with bodily symptoms (Karasz, 2005; A. Kleinman, 1972; A. Kleinman, 1980; A. M. Kleinman, 1977; A. Kleinman, 1982; A. Kleinman, 1988). The increase of AN among Chinese populations in general and Taiwanese in particular might suggest that food refusal has become a culturally appropriate idiom with which people can express distress. In any case, both explanatory models are clearly present during discussions of *Yanshi Zheng*, and they almost always are held independently of each other while being held simultaneously¹⁰. In other words these two categories, along with the third, can easily be offered by the same individual without any apparent fear of contradiction, and with these three models, any given instance of AN is expected to be explained.

While the present study has offered some new insight into Taiwanese understandings of Anorexia, it suffers from a number of limitations. First, the survey participants were not a representative sample that allows for generalizations about all Taiwanese people. Secondly, only the section on etiology was used in this study. From the etiology section, only a small number of items were available for use in coding conceptual categories.

¹⁰ This does not preclude the possibility that a given instance of AN might be the result a combination of those factors explain by each model. The suggestion, however, is that AN is likely to be caused by one of the three.

Future research could correct both of these problems by using more representative samples with more thorough survey formats. Lastly, qualitative data could be more extensive including people from more diverse backgrounds.

Despite these limitations, the findings of this mixed methods approach have suggested that according to lay Taiwanese understandings, the cause and course of anorexia may be more complex than has been assumed by past research. Once thought to be a western, culture-bound syndrome increasing in non-western countries as a result of the influence of western media and values, AN can be seen as a complicated phenomenon that is not necessarily caused or manifested in the same way across various cultural and geographic landscapes. Other research has begun to point to similar complexities regarding AN around the globe while suggesting that its increase may have more to do with the pressures of societal modernization than it does with the globalization of western values(Katzman & Lee, 1997; Lester, 2007).

The present study has highlighted some ways in which AN may be understood in the Taiwanese context with the hope that researchers will continue to gain insight into the ways that self-starvation varies by cultural contexts, in terms of what it means to people and how it is reacted to in a given society. This kind of awareness can help us look critically at our own illness constructions as well as help us look at psychiatric concerns across cultures without imposing our own understandings on others. The ultimate goal is to improve knowledge for the sake of improving care in an environment of empathy and humility.

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