Positive Psychological Measure: Constructing and Evaluating the Reliability and Validity of a Chinese Humor Scale Applicable to Professional Nursing

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ABSTRACT: The nursing profession has generally accepted humor as beneficial to health care. As nursing has always emphasized holistic care and the importance of individual needs, the profession values the ability of humor to positively affect all aspects of a patient's well being. The purposes of this study were to develop a "Chinese Humor Scale (CHS)" for the nursing profession and then test its reliability and validity. The 405 individuals selected for participation in this study included nursing on-the-job students from a medical university and professional nurses practicing at four hospitals in north Taiwan. Researchers developed a list of 57 key humor measures which were filled out and returned by study participants. An evaluation of results using Cronbach's alpha coefficients demonstrated good consistency ($\alpha = .93$) for the developed CHS. Intercorrelations amongst the four sub-scales were generally quite low, indicating each sub-scale measures dimensions relatively distinct from one another ($r = .24$~$.48$, both $p's < .001$). The CHS was tested using item analysis. The scale was constructed in accordance with exploratory factor analysis (EFA) (K.M.O. = .92). Thirty CHS items, categorized under the four indices of "humorous creativity", "tendency to laugh", "perceptivity to humor", and "humorous attitude", were found to explain 55.42% of total variances. The CHS was found to provide good validity using a content validity index (CVI) developed by five experts. The results of this study provide encouraging evidence for the construct validity and reliability of the proposed humor scale and support its application by nursing educators and clinicians to further test and assess concepts related to humor. Further research is needed to explore more fully the implications of humor in nursing.

Key Words: humor, exploratory factor analysis, construct validity, positive psychological measure.

Introduction

The nursing profession has generally recognized the importance of humor in the provision of health care. As nursing emphasizes holistic care and the importance of individual needs, humor's ability to affect positively all aspects of a patients' well being is widely recognized. The US federal-level National Institute of Health (NIH) provides information about and sponsors research in alternative treatment therapies. With its concern for both science and nature, mind and body, and wholeness and individuality, alternative medicine naturally encompasses humor therapy.

Therapeutic humor leverages the power of smiles and laughter to help heal. Many nurses and home health care workers already appreciate the value of smiles and laughter in addressing the physical needs of patients under their care. Laughter appears to alter chemical balances in the brain and may help boost immune system effectiveness. Psychoneuroimmunology, an important area of scientific research today, is exploring the brain's natural ability to affect the body's ability to heal (National center for complementary and alternative medicine, 2005).

Psychologists have long shown interest in studying the effects of humor on individuals (Martin, 1998) and, since the

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early 1980s, much of humor-related research has focused on the potentially beneficial effects of humor on physical, psychosocial health and well-being (Lefcourt, 2001; Martin, 2001). Current interest in "positive psychology", which focuses on adaptive strengths, such as optimism, faith and courage, will likely continue expanding studies of humor-related traits (Seligman & Csikszentmihalyi, 2000). As humor is grounded in positive individual traits and cultural background, application of a positive psychology perspective may offer a methodology through which to deliver more comprehensive health care tailored to the needs of individual patients (Huebner & Gilman, 2003). However, despite international interest, research on humor-related issues in health care have been rarely studied within the Taiwan nursing specialty (Liu, 2004). Measurements developed in Taiwan that focused on defining humor in school-aged children (Chen, 2003; Ho & Lin, 2000; Hsu, 2002) are not appropriate for studies of adults or for use in nursing studies. Our objective in this study is to develop a humor measurement tool of practical use to clinical nursing. As such, subjects of our research were practicing nurses. The developed Chinese Humor Scale (CHS) was tested by item analysis and in accordance with exploratory factor analysis (EFA) steps.

Literature Review

Key concepts and cultural differences

Traditional Chinese concepts of humor were aptly described by poet Quyuan, who, in his work the *Ninth Chapter*, described humor as deep, remote and silent. Merriam-Webster Collegiate Dictionary (2005) defines humor as "a normal functioning bodily semi-fluid or fluid (as the blood or lymph). Merriam-Webster describes humor as "that quality which appeals to a sense of the ludicrous or absurdly incongruous, the mental faculty of discovering, expressing, or appreciating the ludicrous or absurdly incongruous, something that is or is designed to be comical or amusing. Humor is a state of mind, formerly believed to determine a person's physical and mental qualities." (Compact Oxford English Dictionary, 2005). Humor is spread throughout every culture on earth (Howe, 2002). Traditionally, humor is used in a rather latent and suppressed manner in Chinese culture. In a cross-cultural comparison that compared with Chinese and American students, Chinese jokes tended to contain relatively greater aggressive content and relatively less sexual content (Nevo, Nevo, & Yin, 2001).

The benefits of humor in nursing education

Humor can be an effective tool for nurse educators to teach course content, hold students' attention, relieve anxiety, establish rapport with students, and make learning fun. When combined with other teaching methods, humor can enhance student learning. The use of humor to stimulate mental processes and control fear and anxiety helps students retain the content they have been taught (Ulloth, 2002).

An extensive study of the social functions of humor (Marie, 2002) found that humor can increase group morale and cohesiveness. Humor has been an integral part of human communication for much of recorded history. Hellenistic philosophers Socrates and Plato were known for their sophisticated humor (Ulloth, 2002). During medieval times, a balance of the four body fluids, known as the humors, was considered necessary to the maintenance of good health. Humor has continued as a topic of interest in various fields (Ulloth, 2003).

The benefits of humor in clinical nursing work

Investigations into the relationships between humor and health have increased significantly in recent decades and, today, the results of numerous studies support the idea that laughter and good humor have important and positive roles to play in cardiac rehabilitation, pain perception and discomfort threshold, coping and stress, and immune response (Godfrey, 2004; Paivi & Arja, 2001).

Care provider attitudes can influence patient response to treatment. Attributions of low worth and self-blame, stigma, negative patient behavior, and clinician incompetence can make patients feel unwanted. Many of patients can be hospitalized for years, and they may be present as angry, hopeless, and helpless. By adopting humor as a focus of patient treatment, we understand humor to be a process involving a stimulus-humor, i.e., an emotional response of mirth or amusement, usually resulting in such auto-response behavior as smiling, grinning, giggling or laughing (Ulloth, 2002).

The measurement of humor in research development

The concept of humor has evolved from it being a fluid in the body to its modern position as a multifaceted concept, characterized by divergent and overlapping theories (Ulloth, 2003). Freud (1960) sparked the psychoanalytical phase of humor research, which included theories of superiority and disparagement as means by which forbidden impulses are expressed through one person or group "puts down" another person or group as inferior. In both theories,

humor can be appropriate or inappropriate. Appropriate humor fits the situation; is emotionally uplifting; offends no one; creates a positive, supporting atmosphere; and is relevant to the topic discussed. On the other hand, inappropriate humor does not fit the situation; can be hurtful, disparaging, and offensive; and employs profane or sexual language (Blumenfeld & Alpern, 1994).

Humor has been studied most frequently using a quantitative approach. Clinically oriented research has explored humor chiefly as adjunct to other primary treatments and therefore offers little guidance regarding methods by which to evoke therapeutically desirable laughter (Minden, 2002). Sense of humor may be conceptualized in various ways: as a cognitive ability (e.g., ability to create, understand, reproduce, and remember jokes; Feingold & Mazzella, 1993); as an aesthetic response (e.g., humor appreciation, enjoyment of particular types of humorous material; Ruch & Hehl, 1998); as an habitual behavior pattern (e.g., tendency to laugh frequently, to tell jokes and amuse others, to laugh at others' jokes; Craik, Lampert, & Nelson, 1996); as an emotion-related temperament trait (e.g., habitual cheerfulness; Ruch & Kohler, 1998); as an attitude (e.g., bemused outlook on the world, positive attitude toward humor; Svebak, 1996); as a coping strategy or defense mechanism (e.g., tendency to maintain a humorous perspective in the face of adversity; Lefcourt & Martin, 1986); and as a social sharing of emotion (Meisiek & Yao, 2005). However, there is not necessarily a strong correlation between these diverse components of sense of humor, nor are these necessarily instructive regarding which component (or components) are most relevant to professional nursing. These measures purportedly assess such aspects of humor as the degree to which individuals smile and laugh in a wide variety of situations and utilize humor in a multidimensional sense (Thorson & Powell, 1993). The use and perception of humor depends on multiple contextual complexities and situational dimensions of power.

Thus, despite the widespread view that a sense of humor is an important component of healthy psychological functioning, humor measures commonly employed in self-reporting, at best, show only weak and inconsistent relation to various indicators of psychological, physical, and social well-being. One possible reason for these generally weak findings to data may be that such measures generally do not explicitly distinguish between the potentially adaptive function of humor and uses of humor that may be less conducive and possibly even detrimental to well-being. The multidimensional sense of humor scale (MSHS), for example, is designed to assess the degree to which people engage in smiling and laughter, as well as notice, enjoy, create, and express humor (Thorson & Powell, 1993). The humor styles questionnaire (HSQ) assesses four dimensions (self-enhancing, affiliative, aggressive, and self-defeating) related to individual differences in humor use (Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003). The multidimensional sense of humor scale (Chinese version) consists of six subscales, namely "humor comprehension", "humor creation", "use of humor in social contexts", "humor coping", "the attitude toward humor", and "the tendency of laugh" (Chen, 2003). Based on findings and recommendations published in the literature (Chen, 2003; Ho & Lin, 2000; Hsu, 2002; Liu, 2004; Thorson & Powell, 1993), we develop and conduct an initial validation of a Chinese version multidimensional measure in nursing in this paper.

Methods

Definition

Operationalizing humor as laughter has been revealed to facilitate physical health and mental functions, which assesses multiple dimensions related to individual differences in use of humor.

Sampling

This study was designed as a cross-sectional survey. The survey sample comprised 425 subjects, including nursing on-the-job students from a medical university and professional nurses employed at four hospitals in northern Taiwan (including hospitals in both urban and rural districts) Despite data sampling from different units, they all were the nurses at hospitals. The two groups were homoscedasticity. Subject participation in this study was voluntary. To assure complete confidentiality, all answer sheets were anonymous.

Procedure

The study population included a representative sample of clinical nurses and nursing students. Subject participation in this study was voluntary. We developed structured questionnaires to collect data through subjects' self-report. Volunteers who agreed to participate were given an oral explanation of the study and its purpose at their place of work or schooling by the research team. The subjects were given another opportunity to decline to participate at the time they received the questionnaire. To assure complete confidentiality, answer sheets contained no identification numbers and were completely anonymous.

Tool

In developing the Chinese Humor Scale (CHS) for nursing, we employed the construct-based scale construction approach recommended by Jackson (1970), which aims to produce measures that are based in theory with good internal consistency and minimal overlap between measures. The sub-concepts of humor noted most often in the literature include "humor comprehension", "humor creation", "use of humor in social contexts", "humor coping", "attitudes toward humor", and "tendency to laugh". Based on related literature readings, the researchers defined 57 items to use to measure humor (Chen, 2003; Ho & Lin, 2000; Hsu, 2002; Liu, 2004; Thorson & Powell, 1993). Each item was assigned a Likert 4-point response set that ranged from "almost disagree" to "almost agree", with a higher score demonstrating a higher level of humor for the item measured and a lower score demonstrating a lower level of humor for the item measured.

Another measurement tool, the Perceived Stress Scale (PSS) (Cohen, Kamarck, & Mermelstein, 1983), has proven effective in the assessment of perceived stress. This scale was designed to measure the degree to which situations in one's life are appraised as stressful. The PSS is a 14-item self-report instrument with a five-point scale (0 = never, 1 = almost never, 2 = sometimes, 3 = fairly often, 4 = very often). PSS scores are obtained by reversing scores on the seven positive items and then summing across all 14 items. The items are easy to understand and the response alternatives are simple to grasp. A higher score demonstrates a higher level of perceived stress for a measured item. Researchers used the PSS to test CHS discriminability validity.

Data Analysis

Data for this study was collected over a half-year period. Data analysis was done using the statistical software package SPSS 10.0 for Windows. Item analysis was performed using various statistical methods, including means, standard deviations, and EFA.

Results

The questionnaires of 20 (4.7%) of the 425 subjects who agreed to participate in this study were not used due either to the questionnaire missing more than five responses or to evidence indicating a respondent had not taken the questionnaire seriously. The study accepted 405 questionnaires as valid for a response rate of 95.3%.

Table 1.
Demographic Characteristics (n = 405)

Variable	*M*	*SD*	*n*	%
Age	26.89	6.80		
≤ 20			43	10.60
21–40			341	84.20
≥ 41			21	5.20
Education				
Graduate school			21	5.20
College/University			229	56.50
Junior college			122	30.10
Senior high school			33	8.10
Religion				
None			215	53.10
Protestant			29	7.20
Catholic			3	0.70
Buddhist/Taoist			153	37.80
Other			5	1.20
Marital Status				
Unmarried			322	79.50
Married			78	19.26
Widowed			1	0.25
Divorced			4	0.98
Work Status				
Employed			170	42.00
Unemployed	7.15	5.54	235	58.00

Demographic Data

The 405 valid subjects in this study were all female (Table 1), between 17 and 55 years of age (mean = 26.89 ± 6.80 years). Most were unmarried (79.7%) and held a university degree (56.5%). The main religious affiliation of subjects was Buddhism/Taoism (37.8%). Clinical nurses accounted for 58.0% of the sample, with a mean of 7.15 (*SD* = 5.54) years at work.

Descriptive Validity for Instruments

This study examined the construct validity of the CHS. Content validity (expert validity) was considered to be supported based on the findings of previous studies and the comments of a panel of five content experts who checked the fundamental design and structure of the test, critiqued CHS relevance, definition, and clarity, and provided suggested revisions to CHS content. According to the suggestions of the experts, seven items were identified as overlapping with others and removed. Item-specific content validity indices (CVI) were calculated, and items

with a CVI of less than three were either revised or deleted. The final version of the scale consisted of 39 items. The psychometric properties of the CHS, including item analysis and exploratory factor analysis measures, were assessed based on the responses of the 405 participants. Item and factor analyses were used to establish the construct validity of the scale in order to ensure that the CHS could evaluate interactions genuinely and efficiently. Analytical procedures consisted of the following. First, comparison the outliner group for examined each item's discriminability. The small group analysis was done. The subjects of all total score in two to class with two groups, they were lower than 27% score and higher than 73% score, compare with independent *t*-test. Items 4, 7, 16, 17, 18, 24, 26, 31, and 44, found to be non-significant ($p > .05$), were removed - leaving 30 items. After item analysis, an EFA of the remaining 30 items was performed. Running a Kaiser-Meyer-Olkin measure of sampling adequacy and a Bartlett's sphericity test demonstrated that samples met the factor analysis criteria (K.M.O. = .92 and $\chi^2 = 6072.93$, $p < .001$, respectively). Principle components analysis was used to extract common factors. Criteria for extraction factors employed eigenvalues (> 1), scree plots, and component plots in rotated space. We elected to use the varimax method for our orthogonal rotational analysis. Factor analysis yielded a four-factor instrument with an eigenvalue greater than 1 that explained 55.42% of the variance in the 30 items used in the CHS. Through orthogonal rotation, a factor loading of .5 was selected as the cut-off point to delete items with loading values smaller than .4 that could not be categorized. This resulted in a total of 30 items that could be categorized within the four factors, explaining a total variance of 55.42%. The four selected factors included Factor I: "humorous creativity" (incorporating sixteen items, with a variance of 33.34%); Factor II: "tendency to laugh" (incorporating six items, with a variance of 9.58%); Factor III: "perceptivity to humor" (covering four items, with a variance of 6.50%); Factor IV: "humorous attitude" (covering four items, with a variance of 6.00%). Total variance for each factor and the loading of each item are illustrated in Table 2. Correlations between the four of CHQ dimensions were significantly negative in correlation with the Perceived Stress Scale (PSS) ($r = -.12 \sim .32$, both $p's < .05$), with the exception of "humorous creativ-

Table 2.
Item and Varimax-Rotated Factor Loadings for the Four Sub-Scales of Chinese Humor Scale (n = 405)

Item content	*M*	*SD*	Factor loading	Eigen-value	Variance explained	Cronbach's α
Factor I: Humorous Creativity				10.00	33.34	.94
1. Usually I can amuse my friend with humor. 我常使用幽默來娛樂我的朋友	2.74	0.59	.78			
2. I have an ability to make people laugh. 我擁有能使別人歡笑的能力	2.75	0.62	.74			
3. Usually I will lubricate relationships with jokes. 我通常都會試著講一些笑話來潤滑人際的關係	2.76	0.61	.73			
4. I have used humor to impact my relations within a group. 我因為使用幽默而使自己在團體中有些影響	2.65	0.65	.73			
5. I can make people laugh in communication. 我會使用令別人歡笑的方式來說話	2.81	0.59	.73			
6. My friends think I am a funny person. 我的朋友認為我是一個有趣的人	2.72	0.63	.73			
7. Usually I am the person who cracks jokes or does other interesting things in social situations. 在社交場合中，通常都是我在說笑話、雙關語或其他有趣的事	2.48	0.72	.71			
8. I usually try to create a positive mood by telling jokes. 我通常都會試著講一些笑話來營造歡樂氣氛	2.79	0.58	.71			
9. I will do interesting or funny things to relax the tense atmosphere. 我會藉著說些有趣、滑稽的事來緩和緊張的氣氛	2.77	0.61	.70			
10. Usually I make jokes to increase communication effectiveness. 我通常會試著講一些笑話來增加溝通效果	2.89	0.59	.69			
11. Usually I use word play to spark interesting conversation. 我常常會用一些文字的諧音來產生有趣的言談	2.71	0.60	.68			

12. I can solve interpersonal conflicts using puns or word play to deflect attention from problems. 遇到人際衝突時，我會利用雙關語或諧音來淡化，或轉移他人的注意力	2.63	0.65	.67			
13. Usually I am witty in conversation. 談話中，我通常會有一些機智的反應	2.76	0.59	.65			
14. I sometimes recall jokes or funny stories. 有時候我會突然想到一些笑話或滑稽的故事	2.91	0.55	.64			
15. Usually I can make jokes to extricate myself from embarrassing or unhappy situations. 在一些令人不高興的場合，我通常能用說一些笑話來化解	2.51	0.66	.60			
16. I can find a funny, enlightening or humorous aspect to most situations. 有大多數情境中，我都能找到一些詼諧、機智或幽默	2.82	0.58	.59			
Factor II: Tendency to Laugh				2.88	9.58	.76
17. I am typically jovial throughout the day 我通常整天都是嘻嘻哈哈的	2.53	0.65	.68			
18. If I mistakenly recognize someone in public, I will laugh on the spot if I feel it is funny. 在公共場合認錯人，我會覺得好笑，當場笑出來	2.71	0.67	.66			
19. Usually I am the one who laughs loudest when someone tells funny stories. 有人講笑話，我通常都是笑的最大聲的那一個	2.53	0.72	.66			
20. If I trip and fall in a crowded, public place, I will laugh/smile to relieve my embarrassment. 公共場合，不小心跌倒，很多人在看我時，我會以笑來解除這種尷尬	2.82	0.63	.64			
21. If I find a situation very funny/silly, I will laugh out loud even if others do not feel the same. 如果我發現某些情境非常有趣，縱使其他人不覺得，我還是會忍不住地笑出來	2.89	0.61	.62			
22. If I am hurt and need several days to recover, I will still smile and maintain a cheery optimism. 如果我突然受傷，需要花數天躺在床上休息，這段期間內，我會時常微笑，讓自己放鬆心情	2.80	0.63	.62			
Factor III: Perceptivity to Humor				1.95	6.50	.83
23. Humor is a quick-witted response. 幽默往往是機智的反應	3.20	0.64	.88			
24. I feel humorous people often help me gain insights that I would not otherwise have. 我覺得幽默的人常開啟我生活中一些連我自己都很少想到的視野	3.16	0.60	.87			
25. Unhappiness is inevitable, so the world is fortunate to have people with humor to give us laughter. 人生難免有些不愉快的，幸虧有幽默的人帶來歡笑	3.20	0.62	.78			
26. I often observe people trying to make others smile and laugh. 我常能看出別人有意要引起他人發笑的幽默行為	3.01	0.65	.66			
Factor IV: Humorous Attitude				1.80	6.00	.81
27. Humor always helps to put me in a better mood. 幽默的事務總是能讓我的心情變得愉快	3.20	0.53	.82			
28. Humor is relaxing. 使用幽默能幫助我放鬆	3.20	0.55	.81			
29. Humor helps me to adapt to many different situations. 使用幽默幫助我適應許多不同的情境	3.11	0.54	.80			
30. I frequently watch animated or comedy films to relax. 我常常看有趣的卡通或喜劇片，來放鬆心情	3.09	0.69	.64			
Total scale	2.83	0.34			55.42	.93

Table 3.
The Correlations of the Four CHQ Dimensions With the Perceived Stress Scale (PSS) (n = 405)

Item	Low-PSS ($M \pm SD$)	High-PSS ($M \pm SD$)	γ	*t*
Humorous creativity	52.28 ± 7.90	50.86 ± 8.80	-.09	1.70
Tendency to laugh	16.87 ± 2.69	15.74 ± 2.49	-.32***	4.39***
Perceptivity to humor	12.81 ± 1.97	12.32 ± 2.09	-.12*	2.40*
Humorous attitude	12.69 ± 1.73	12.50 ± 1.97	-.12*	1.06

*$p < .05$. *** $p < .001$.

Table 4.
Intercorrelations Between the Four CHQ Dimensions (n = 405)

Item	Humorous creativity	Tendency to laugh	Perceptivity to humor	Humorous attitude
Humorous creativity	1.00			
Tendency to laugh	.23***	1.00		
Perceptivity to humor	.37***	.30***	1.00	
Humorous attitude	.48***	.24***	.27***	1.00

*** $p < .001$.

ity" (see Table 3). The research subjunctives were to class low-PSS scores and high-PSS scores, the two group was significantly difference in the dimension of humor perception and laugh tendency ($t = 2.40$~4.39, both p's $< .05$). The CHS discriminability validity was good.

Instrument Descriptive Reliability and Intercorrelations

Reliability measures with regard to the CHS were assessed using the responses of 405 participants. The internal consistency Cronbach's alpha reliability coefficient for the total scale was .93 and item-scale correlations fell between .32–.69. Cronbach's alpha coefficients for each of the four factors ranged from .76 to .94 (Table 2). The generally low intercorrelations among the four sub-scales indicate that these sub-scales measure dimensions relatively distinct from one another. Not surprisingly, all sub-scales were positively correlated ($r = .24$~$.48$, both p's $< .001$), indicating that an individual who used humor creativity along one dimension was likely to do so along others as well (Table 4).

Discussion

In our development of a CHS for nursing, we employed the construct-based scale construction approach recommended by Jackson (1970), which aims to produce theoretically-based measures with good internal consistency and minimal inter-scale overlap. Internal consistency and reliability are especially important when we were measuring constructs. The results of this study indicate that the CHS has good reliability in Taiwanese and that it is valid for use with nurses to assess humor. Stevens (1996) stated that the purpose of EFA is to identify the factor structure of a set of variables, and should be considered as a theory-generating procedure. Therefore, it can be used to establish the construct validity of an instrument.

It is expected that the CHS will be useful for research on humor and psychological well-being to assess forms of humor that may be deleterious to health as well as those that may be beneficial. Interest in the study of humor-related traits is likely to continue in view of current attention to the concept of "positive psychology" (Seligman & Csikszentmihalyi, 2000). Therefore, our development of this measure began by examining past theoretical and clinical literature on the relationships between humor and well-being to identify the various functions, forms, or styles of humor that have been described as either adaptive and beneficial or maladaptive and detrimental to human health. The Chinese Humor Scale assesses four dimensions related to the different uses and functions of humor in everyday life. The factors result is nearly identical to the findings of Chen (2003). Chen's sense of humor survey, designed to explore how sense of humor affects cognitive appraisals that individuals make during periods of stress or emotional difficulties, used a scale that incorporated the six subscales of "humor comprehension", "humor creation", "using humor in social contexts", "humor coping", "attitudes toward humor", and "the tendency to laugh". Chen's

study provided empirical support for the stress-buffering (mediating) effects and the positive enhancement effects of humor.

By assessing each of these aspects of humor, we expect that these scales, taken together, may account for a greater proportion of the variance among variables than do previous self-report humor scaled. This finding agrees with the results of studies done previously by Thorson and Powell (1993) and Chen (2003).

Conclusion and Applications

The strength of this study is its focus on positive elements to measure psychological health. The CHS represents a new approach to assess individual differences in humor because it is the first self-report measure to specifically assess ways in which people use humor in ways that are less desirable and potentially detrimental to psychological well-being. CHS takes into consideration the previous observations of experts (Martin et al., 2003) that certain forms of humor can be deleterious to psychological health. We developed a nursing CHS as an effective rating scale by which to evaluate the concept of humor as it relates to patient and health care. The CHS for subjects were evaluated with Cronbach's α coefficients. Both the internal consistency and stability of the scale were higher than .8, indicating that scale reliability is acceptable. The CHS was tested by item analysis and in constructed in accordance with exploratory factor analysis (EFA) steps. The construct validity of the scale was good, as was its discriminability validity. The CHS was constructed around four factors (sub-scales). Overall, the present findings offer encouraging evidence in support of CHS construct validity. In addition to the convergent self-report data, correlations observed amongst each of the four CHS subscales and peer ratings of corresponding dimensions provide promising evidence of criterion validity and specificity. Based on the result, we see encouraging evidence in support of both the construct validity and reliability of CHS and believe that the scale can be applied in both nursing education and practice. Futher research is required to explore the psychological health implications of the use of humor.

Limitations

Because this study employed a cross-sectional research design, we were unable to assess changes in humor over time. For longitudinal designs (i.e., repeated measures) are appropriate. Also, as this study is limited to female subjects, findings can neither be generalized nor be taken as representative of all nursing fields. More research is needed to explore the applicability of CHS in diverse gender populations.

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正向心理測量：應用於護理領域的中文幽默量表之建構及信、效度檢定

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摘 要： 在護理專業已廣泛接受，幽默是有利的健康照顧態度，因爲護理強調整體性和個別化需求，而幽默的重要性可正面影響病患的幸福安適感。本研究目的在發展應用於護理領域之中文版幽默量表和建構其信、效度。研究樣本來自某家醫學大學護理學系在職進修學生和某四家台灣北部醫院的臨床護理人員，以立意取樣共 405 位受試者，藉由參考國內、外數篇幽默相關文獻資料及研究工具後，彙整草擬本研究工具 57 題題目，發展出結構式自填問卷，用此完成資料收集。並採 Cronbach's α 係數以評值此量表內在一致性，該量表具有可信度 (α = .93)，且四個分量表的彼此爲低度相關性，亦具有區別性 (r = .24~.48, both p's < .001)。進行項目分析和探索性因素分析建立量表之建構效度 (K.M.O. = .92)，量表的四個次概念分別是幽默創造力、笑的天分、幽默察覺和幽默態度共 30 題，解釋總變異量爲 55.42%，且五位專家建立內容效度指標，並具有良好的區辨效度。本研究結果證明中文版幽默量表爲一個具有建構效度和信度的量表，可供護理研究者和臨床專家用來測量和評估幽默的概念，未來研究建議將幽默應用在護理領域的測量。

關鍵詞： 幽默、探索性因素分析、建構效度、正向心理測量。

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