DEVELOPMENT AND VALIDATION A SCALE OF INDONESIAN UNDERGRADUATE SOURCES OF STRESS QUESTIONNAIRE (IUSSQ)

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ABSTRACT
This study conducted to obtain the problems of undergraduate student problems as well as for construct validation and internal consistency of the problem source, which later couldused as a valid and reliable instrument to identify the source of problems among undergraduate students. The cross-sectional study conducted on 704 students in 14 faculties. The making and development of questionnaires conducted based on student complaints during counseling at the Clinic at campus and literature study, and obtained 50 items. Construct validation and internal consistency carried out confirmatory factor analysis using structural equation modeling in Lisrel software application and grouping carried out using analysis factor in SPSS software application. Results of structural equation modeling validation using the t-test obtained 24 valid variables with t values ≥ 1.96. The results of analysis factors obtained 5 factors that are the problem of communication and adaptation, academic, personal, emotional, and disappointment. The study results suggest that it is necessary to introduce campus adaptation programs/activities, introduction of teaching and learning activities, communication workshops/trainings, mentoring from seniors to help communication and adaptation between friends, faculty staffs and lecturers.
Keywords:Undergraduate student, source of problem

INTRODUCTION

Educational environment at the university consider a stressful environment for students.Physical and mental health disorders in the form of depression, anxiety and stress and even suicidal thoughts as a result of pressure during study in university have been shown in several studies(Batrlett, Taylor, & Nelson, 2016; Dahlin, Nilsson, Stotzer, & Runeson, 2011; Fawzy & Hamed, 2017; Hamza, AlKanhal, Mahmoud, Ponnamperuma, & Alfaris, 2011; Jacob et al., 2012; Pandya & Karani, 2012; Rosiek, Rosiek-Kryszewska, Leksowski, & Leksowski, 2016; Shah, Hasan, Malik, & Sreeramareddy, 2010; Teh, Ngo, Zulkifli, Vellasamy, & Suresh, 2015; Muhammd Saiful Bahri Yusoff, Rahim, & Yaacob, 2010; Zhang, Chernaik, & Hallet Susan, 2017; Zivin, Eisenberg, Gollust, & Golberstein, 2009).

Academic stress/problems have been shown to cause psychological and somatic disorders that affect health.(Leung et al. 2010). The consequences of too much pressure / problems include vulnerability to depression, despair, and suicide as well as inflammation of the stomach, high blood pressure, and cardiovascular disease (Putwain, 2007;. (S. S. Leung, Wah Mak, Yu Chui, Chiang, & Lee, 2010); Yusoff et al. 2010). Academic pressure related to poor academic results or achievements and disrupts the ability of students to work effectively and efficiently (Akgun&Ciarrocchi, 2003). Academic stress has a negative correlation with academic performance, contributing to the high rate of drop out and dropping out in college(Zajacova, Lynch, & Espenshade, 2005). Reactions to stress in the form of psychological, emotional, habits, cognitive(Gadzella, 1994), decreased health(Ross, Niebling, & Heckert, 1999),

Medical examination report on 2015 which conducted to freshman by the Satellite Clinic found 256 (3.69%) from 6,928 students who experienced a tendency to clinically emotional mental disorders that needed immediate treatment for further prevention(Hardjono, 2015), and on 2016 from 7,296 students who conducted medical examination 664 (9%) detected having experienced a tendency emotional mental disordersclinically. Interview were conduct by the doctor,students had experienced stress before entering the university, because ofstudy in the department desired by parents was not their own desire.

Satellite Clinic has increased significantlyin student visits for counseling from 2008 to 2016. The increase in student visits for counseling occurs before the midterm until the end of the semester. This situation shows theincreasing student's concern for counseling assistance. (KlinikSatelitMakara, 2016).

Undergraduate students were the most visited of the Satellite Clinic on 2016,it was 443 studentsas of freshman to seniorstudents.Students of the Social Sciences and Humanities Cluster constituted the largest proportion that came to counseling to the Satellite Clinic from 2011 to 2015, attended by students from the Health Sciences Cluster and Science and Technology Clusters.

The preliminary research showed

The problems that most students complained when counseling were excessive anxiety and fear, related to the situation of parents and other family members, lack of motivation and effectiveness of learning, related to friendship and/or organization, self-confidence, related relationships with the opposite sex/boyfriend/girlfriend, settlement final thesis, etc.(KlinikSatelitMakara, 2016).

This study conducted to obtain the problems of undergraduate student problems as well as construct validation and internal consistency from the problem source questionnaire, which later can be use as a valid and reliable instrument to identify the source of problems/stress among undergraduate students in Indonesia.

MATERIAL AND METHODES

The items in the questionnaire were collected based on a list of student complaints during counseling and literature review from other studies, so that 50 items of statements were obtained with 4 Likert scales which became the answer choices for each statement. Choices of answers include 'never', 'sometimes', 'often', and 'always'. The measurement results of the statements are obtained from the total score that shows 'low', 'medium', and 'high' problems received.

The sample size was 704 respondents, second year and third year students with proportional amounts in each faculty. Data collection conducted in the odd semester of the 2017/2018 academic year from September to December 2017.

Construct and internal validation consistency weredone by confirmatory factor analysis using structural equation modeling in Lisrel software version 8.7 and variable grouping using analysis factor in SPSS version 17.

RESULT

Factor analysis reduced the origin variables into new fewer variables in number that can explain the overall variables. After confirmatory factor analysis (CFA) was carried out using the t-test on structural equation modeling (SEM) 24 variables were obtained with t-values ≥ 1.96. The results of the CFA were analyzed again so that 5 factors were obtained with KMO = 0.909> 0.5 and Bartlett's test of sphericity = 6056.35, p = 0,000 <0.05. The results of the analysis of 24 variables reduced to 5 factors which can explain to 24 factors of 53.8%.

The results of the feasibility test or suitability of the model show that the resulting framework has fulfilled the 4 criteria of Goodness of Fit and is sufficient to assess feasibility, shows that the source of the problem in students produced in this study was suitable, good, and parsimony.

Factors in the source of the problem be seen in table 2.

Table 2. Variables in Factors

No Item	Item	Loading Factors
1.	**Communication and Adaptation Factors:**	
12	Difficulty communicating with lecturers	0.777
21	Difficulty interacting with lecturers	0.717
13	Lack of face to face interaction / support in class	0.566
11	Difficulty adapting to fellow students	0.502
23	Difficulty participating in class discussions	0.494
10	Difficulties when working on assignments with groups	0.390

No Item	Item	Loading Factors
2.	**Academic Factors**	
5	Difficulties in understanding lecture material	0.693
6	Difficulty completing college assignments	0.627
8	Difficulty doing exams	0.560
3	Too much material must be learned	0.503
2	Lack of time to repeat the material that has been learned	0.429
3.	**Personal Factor**	
47	Career concerns and postgraduate preparation	0.594
45	Problems with confidence	0.589
39	Fear is not accepted by new friends / environment	0.529
48	High competition / competition between friends on campus	0.499
40	Fear will fail during the exam	0.492
46	Lack of motivation	0.413
4.	**Emosional Factor**	
26	Friendship problems or in organizations	0.521
29	Difficulty controlling emotions	0.472
30	Feel discriminated	0.460
44	Difficult to adjust to the new environment and culture (culture shock)	0.426
5.	**Disappointment Factor**	
17	Anxiety about low study achievement	0.616
18	Disappointment with current academic achievements	0.554
38	Assessment of lecturers who are impartial / unfair	0.368
24	Disagree with majors with interests and talents	0.227

This study indicate that academic factors are not the only source of problems for students, but that communication and adaptation factors are the first factors in the source of the problem.

DISCUSSION

The factors in the source of the problem in this study were not different from the results of research in several studies in various countries stating that frustration, conflict, pressure, change, self as a cause of stress (Gadzella, 1994), and self-confidence, fear / nervousness(Alzaeem, Azhar, Sulaiman, & Gillani, 2010; M. Yusoff, 2011; Muhamad Saiful Bahri Yusoff, Rahim, & Yaacob, 2010), limited time for family and friends, and competition between colleagues(Kuh, Cruce, Shoup , Kinzie, &Gonyea, (2008); McKenzie & Schweitzer, (2010); Da CosteLeite& Israel, (2011); (Lin & Shing, 2009), lack of time and facilities for entertainment (Sreeramareddy et al., 2007); (Muhammd Saiful Bahri Yusoff et al., 2010); (M. Yusoff, 2011); (Ross et al., 1999), expectations of parents and lecturers (Akgun&Ciarrochi, 2003; Eremsoy, Celimli, &Gencoz, 2005; (Zajacova et al., 2005); Huan, See, Ang, & Har, 2008; Pfeifer, Kranz, &Scoggin, 2008; Sreeramareddy et al. (2007); (M. Yusoff, 2011;

Muhammd Saiful Bahri Yusoff et al., 2010).Socialize and adjust to fellow students with different characteristics and backgrounds, develop talents and interests through non-academic activities (Govaerts & Grégoire, 2004), Socialize and adjust to fellow students with different characteristics and backgrounds, develop talents and interests through non-academic activities.

In general, it can be concluded that the factors of communication and adaptation, academic factors, personal and emotional factors are factors that are sources of problems for students in Indonesia. The results of this study generalized to undergraduate students in the second and third years according to the characteristics of the respondents in this study.

Based on the results and discussion of the research it can be concluded that there are 5 factors formed from 24 variables, namely communication and adaptation factors, academic factors, personal factors, emotional factors, and disappointment factors that can measure the source of the problem validly and reliably.

Based on the results of data analysis, problem finding and discussion, the researcher provided input for managers of all universities, campus introduction programs / adaptation activities, introduction of teaching and learning activities, communication workshops / training, assistance from seniors / seniors to help communication and adaptation between friends and faculty staff and lecturers.

CONFLICT OF INTEREST

The authors declare that there areno conflicts of interest.

ETHICAL CLEARANCE:

This study was approved bythe Ethical Committee of Public Health Facultyof Universitas Indonesia number: 482/UN2.F10/PPM.00.02/2017. An informed consent was obtainedfrom all participants before filling the questioner.

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