

Analysis of The Need to Develop A Stress Module Among Teachers

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Abstract

This study was conducted to identify the needs and specifications for the development of a stress management module among teachers. To ensure that the developed module is relevant and practical for counselors, who are the main users, three experts were consulted to assess the content validity of the needs analysis. Subsequently, a questionnaire was distributed to 20 education counselors to gather information related to the need for using the module. Study data were collected through questionnaires and semi-structured interviews using purposive sampling techniques. Quantitative and qualitative interview data were categorized and analyzed thematically. The analysis results identified three main themes: (1) the need for the module, (2) the need for implementing a stress management program, and (3) suitable activities to be conducted in the program. Overall, the needs analysis showed a strong need to develop a stress management module for teachers.

Keywords: Needs analysis, Teacher stress module

Resumo

Este estudo foi realizado para identificar as necessidades e especificações para o desenvolvimento de um módulo de gestão do estresse para professores. Para garantir que o módulo desenvolvido fosse relevante e prático para os conselheiros escolares, principais utilizadores, três especialistas foram consultados para avaliar a validade de conteúdo da análise de necessidades. Posteriormente, um questionário foi distribuído a 20 conselheiros educacionais para coletar informações sobre a necessidade de utilizar o módulo. Os dados do estudo foram recolhidos por meio de questionários e entrevistas semiestruturadas, com amostragem intencional. Os dados quantitativos e qualitativos provenientes das entrevistas foram categorizados e analisados tematicamente. Os resultados da análise identificaram três temas principais: (1) a necessidade do módulo; (2) a necessidade de implementar um programa de gestão do estresse; e (3) as atividades adequadas a serem desenvolvidas no programa. De modo geral, a análise das necessidades demonstrou a necessidade elevada de desenvolver um módulo de gestão do estresse para professores.

Palavras-chave

Análise de necessidades; módulo de gestão do estresse para professores.

Resumen

Este estudio se llevó a cabo para identificar las necesidades y especificaciones para el desarrollo de un módulo de gestión del estrés dirigido a docentes. Con el fin de garantizar que el módulo desarrollado fuera pertinente y práctico para los orientadores escolares, quienes son los principales usuarios, se consultó a tres expertos para evaluar la validez de contenido del análisis de necesidades. Posteriormente, se distribuyó un cuestionario a 20 orientadores educativos para recopilar información sobre la necesidad de utilizar el módulo. Los datos del estudio se recopilaron mediante cuestionarios y entrevistas semiestructuradas, con muestreo intencional. Los datos cuantitativos y cualitativos obtenidos de las entrevistas fueron categorizados y analizados temáticamente. Los resultados del análisis identificaron tres temas principales: (1) la necesidad del módulo, (2) la necesidad de implementar un programa de gestión del estrés y (3) las actividades adecuadas para llevar a cabo dicho programa. En general, el análisis de necesidades evidenció una alta necesidad de desarrollar un módulo de gestión del estrés para docentes.

Palabras clave

Análisis de necesidades; módulo de gestión del estrés para docentes.

Introduction

The Stress Management Module serves as a reference and guide for developing a training module. This psycho-educational module is expected to help individuals avoid work-related stress in their daily lives. This module raises awareness in individuals about managing stress individually or in groups. It is hoped that this module can provide a clear picture of how to handle stress correctly and systematically. The use of this module is also hoped to enable individuals facing stress to cope and be resilient positively, allowing them to enjoy a harmonious and good life.

In this stress module, the emphasis is more on counselors' expertise and skills in dealing with stress problems, especially among teachers. The researcher's observation indicates that the use of module-assisted approaches in Malaysia is still limited and not specifically applied as a guide. This specific stress module is still not widely used, especially among teachers. The researcher also observes that implementing a counseling program-based module facilitates educational counselors and counseling teachers in conducting group counseling sessions.

Russell (1974) explains that modules can be implemented in both academic and non-academic fields. Academic module-based instruction can be held in primary schools, secondary schools, colleges, or universities. In the non-academic field, its use can be implemented in activities such as self-improvement, hobbies, creation, adventure, and recreation. Generally, modules are used for regular instruction, enrichment, remediation, substitution, and for conducting courses and distance education. Sulaiman Yadin et al.(1986) state that one of the uses of modules is to help individuals acquire knowledge, understanding, and skills to improve management efficiency in achieving objectives set by an organization. A study conducted by Mohd Faizal Hassan, Hamidah Sulaiman, and Ghazali Darusalam (2018) showed that role conflict, role ambiguity, and role overload significantly contribute to stress among teachers. This indicates that individuals' coping mechanisms vary greatly and can lead to an inability to control feelings, emotions, or behavior. Teachers still lack rational decision-making skills when facing difficulties in problem-solving, especially when dealing with various issues and challenges (Vernon, 2004).

The challenges faced by teachers can contribute to negative symptoms such as work-related stress (Rosmary & Faridah, 2021). A successful organization heavily depends on its working methods and styles. Therefore, to ensure that organizational objectives are achieved, special training can be provided to teachers through stress management training included in the module. The researcher also views the skill of managing teacher stress by undergoing module-assisted activities as a very effective scholarly research process. According to Brewer et al.(2019) it is crucial to plan appropriate intervention delivery mediums (e.g., face-to-face or online) to address stress issues.

From the explanations above, we can conclude that it is important for individuals to recognize the causes of stress and manage their stress better. Based on the explanation, thought disorders, emotional disturbances, and behavioral problems among teachers do not simply appear. Instead, emotional and behavioral disturbances arise from the perceptions and reactions of those experiencing them (Palmer & Dryden, 1994). Individuals experiencing stress will put less effort into managing it when they believe their irrational belief system is their response to stress. As a result, they tend to blame the event as the cause of the stress they face and will reject opportunities to improve the situation (Ellis & Dryden, 1997). This will undoubtedly prevent individuals from improving their coping strategies and resilience to stress. It is these negative stimuli that will cause disturbances within a teacher.

Needs analysis as the initial phase of the study

Needs analysis is an important aspect in planning educational modules. Pratt (1994) defines needs analysis as a method to identify the gap between the existing situation and the desired situation. Meanwhile, McKillip (1987) states that needs analysis is a value judgment that a certain group has problems that can be solved. The needs analysis phase provides important information in determining the design and development of instructional materials in subsequent phases (Gagne et al., 2005). In the context of this research, the needs analysis study was conducted at the beginning of the module development study to ascertain teachers' needs in dealing with the stress they face and how to manage stress more wisely. The data obtained in the needs analysis phase are used for the design phase as elements in module development. Subsequently, the module is applied and its effectiveness evaluated.

Study Objectives

The objectives of the needs analysis phase are as follows:

1. To identify the validity level of the Needs Analysis Questionnaire for the Development of a Stress Management Module among teachers based on expert opinions.
2. To test the reliability of the Needs Analysis Questionnaire for the Development of a Stress Management Module among teachers.

4. Research Methodology

5. Research Design

This study used two methods: questionnaires and interviews, as well as document analysis. This study used a quantitative approach, and interviews aimed at testing the validity and reliability of the Needs Analysis Questionnaire for the Development of a Stress Management Module.

6. Population and Study Sample

The study sample consisted of two parties: experts to determine validity, and educational counselors with experience in handling teachers facing stress, selected to test the reliability of the Needs Analysis Questionnaire for the Development of a Stress Management Module among Teachers.

a) Sample for determining validity

The study sample consisted of three expert evaluators in determining the face and content validity of the questionnaire developed by the researcher. The content validity of this questionnaire was evaluated by 3 experts, following Mohd Majid's (2005) suggestion that at least 3 appointed experts should evaluate and examine items in terms of content and objectives to be measured.

Table 1: Expert Evaluator Description

Expert	Background of Expert
EXPERT 1	Lecturer at a Teacher Education Institution, holds a Doctor of Philosophy Degree
EXPERT 2	Senior Lecturer, University Pendidikan Sultan Idris, holds a Doctor of Philosophy Degree
EXPERT 3	Lecturer at University Sains Islam Malaysia, holds a Doctor of Philosophy Degree

b) Sample for reliability testing

According to Chua (2016), the number of pilot study samples should not exceed 100 respondents or range between 10 to 30 respondents. Therefore, the researcher selected 20 individuals as the sample for this pilot study, consistent with previous researchers' recommendations.

7. Study Questionnaire

This questionnaire was adapted from the Needs Analysis questionnaire by Mohd Izwan et al (2017), which was also used by Nurul Fathiah and Ahmad Jazimin (2022) in their study and was modified in terms of sentence structure to suit the assessment of the needs analysis for developing a stress management module among teachers. This questionnaire has 3 objectives: (1) module need, (2) stress management program need, and (3) program activities conducted.

Table 2 shows each questionnaire item.

Construct	Item No.	Number of Items
1) Need to develop Stress Module	1,2,3,4,5,6	6
2) Need for Stress Management program	7,8,9,10,11,12,13,14	8
3) Program Activities Conducted (Open-ended question)	15,16,17,18	4

Meanwhile, a five-point Likert scale (5-Likert) was used as the respondents' answer choices to determine the level of agreement regarding the needs analysis for the development of a stress management module among teachers. This facilitates the researcher in determining respondents' evaluation of an item. Table 3 shows the 5-Likert scale scores used.

Table 3 5-Likert Scale Scores

Statement	Score
Strongly Disagree (STS)	1
Disagree (TS)	2
Uncertain (TP)	3
Agree (S)	4
Strongly Agree (SS)	5

8. FINDINGS

Questionnaire Validity

The face validity and content validity of this questionnaire were conducted using the expert reference method (Wan Hanum Suraya & Jamal @ Nordin, 2014). According to Price and Mueller (1986), many researchers have used the expert reference method to assess questionnaire validity. All these items were created after receiving feedback from supervisors and involved expert evaluators. The researcher then made modifications based on comments and suggestions from the involved experts. Items with unclear meanings and those that did not match what was intended to be measured were removed, resulting in only 18 items being used in this questionnaire. Overall, the expert evaluators gave positive comments on the Needs Analysis Questionnaire for the Development of a Stress Management Module among teachers.

Table 4: Expert Evaluators' Views on the Needs Analysis Questionnaire

Expert	Expert's View
1.	The items constructed are suitable for the study in determining module needs/ some items need to be reviewed and improved.
2.	All items are good and can be used. The developed questionnaire is good and can measure the needs of the desired module.
3.	The researcher has constructed the items well. Improvements are needed based on the comments given.

The researcher developed a needs analysis questionnaire to obtain views from lecturers teaching counseling regarding the need for module development. Before providing the questionnaire, the researcher first planned the steps to conduct expert validation on the needs analysis questionnaire for the development of a psycho-educational intervention module in managing stress. In the context of this study, the researcher selected 3 expert panels to assess the content validity of the questionnaire. The researcher prepared: i) appointment letters to expert panels, ii) declaration forms for reviewing the content validity of the questionnaire, and iii) the needs analysis questionnaire items for module development. The researcher emailed all these requirements to the expert panels. The declaration form for reviewing the content validity of the questionnaire contained the expert panel's review results on the needs analysis questionnaire. Meanwhile, the needs analysis questionnaire items for module development contained constructs of module development needs, stress management program needs, and stress management programs conducted (open-ended questions). There were 6 items on module development needs, 8 items on stress management program needs, and 4 items on stress management programs conducted (open-ended questions). The expert panels selected the Likert scale provided for each item from scale 1 (strongly disagree) to scale 10 (strongly agree) regarding module development needs, stress management program needs, and open-ended questions for the stress management program construct conducted. To determine the validity of this questionnaire, the total expert score (x) was calculated, divided by the total actual score (y), and multiplied by 100. The result is in percentage form (Sidek & Jamaludian 2005) as shown in Figure 1:

Total expert opinion score (x) $\frac{\text{Total expert opinion score (x)}}{\text{Total Overall score (y)}} \times 100 \% = \text{Content Validity}$
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The content validity of a questionnaire according to expert opinion is high if the validity coefficient is .70 or above, or yields 70 percent or above (Sidek Noah & Jamaludian Ahmad, 2005; Jamaludin Ahmad, 2002; and Tuckman & Waheed, 1981).

Table 5 Expert Evaluation of Questionnaire Validity

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Item	Statement	P 1	P 2	P 3
1	More teachers facing stress	9	9	10
2	Stress module needed in organizations	9	9	10
3	The role of educational counselors is important to school teachers	9	9	10
4	Group counseling/group guidance approach is important	10	9	10
5	Module content can change teachers' thoughts, emotions, and behavior towards a more positive direction	8	9	10
6	Development of a stress-related module can help reduce teacher stress	8	8	10
7	What is the level of teacher involvement in the stress management program organized by your department	9	9	10
8	What is the impact of the stress management program that has been organized on the teachers involved	9	9	10
9	In your opinion, what is the stress level of teachers who have attended the stress management program	10	9	9
10	In your opinion, what is the stress level of teachers who have not attended the stress management program	8	8	9
11	How can existing teacher stress management programs help reduce teacher stress	10	9	10
12	The stress management program developed should take into account and meet current teacher needs	10	9	10
13	The stress management program developed should take into account			

	suitable module content with the intervention implemented.	10	8	10
14	The content of the stress management module should be developed based on a standard stress management theory or model.	10	9	10
15	State a few program names (last 3 years) related to stress management organized/ conducted by your Department.	10	8	10
16	Are there any modular stress management programs conducted by your Department	10	9	10
17	In your opinion, does the teacher stress management program need to be improved	8	9	10
18	State any of your views or comments related to teacher stress management	8	9	10
TOTAL:		165	158	178

The findings of this study analysis indicate that the Needs Analysis Questionnaire for the Development of a Stress Management Module has a high content validity level of 93% and is acceptable. Moreover, each expert evaluator also gave high scores, exceeding 70%. Based on the results of the validity level analysis, the Needs Analysis Questionnaire for the Development of Stress Management items has been validated to represent the variables to be measured in the study.

Table 6 Content Validity Analysis by Expert

Expert	Score Minimum	Score Maximum	Total Score	Percentage Validity Coefficient	Opinion Expert
1		165	180	91.7% (.92)	Accepted
2		158	180	87.7% (.88)	Accepted
3		178	180	98.8% (.99)	Accepted
Overall Validity Coefficient:				93% (.93)	

9. Reliability of Needs Analysis Questionnaire

The study participants directly involved were educational counselors in JPN and PPD. All of them were given questionnaires related to the need for module development for teachers. The selection technique used was convenience sampling, a non-probability sampling method in which samples are taken from a group of people who are easily accessible or reachable. This type of sampling is also known as grab sampling or availability sampling. There are no other criteria for this sampling method, except that people are available and willing to participate. Furthermore, this type of sampling method does not require a simple random sample to be produced, as the only criterion is whether participants agree to participate (Saunders, M & Lewis, P; Thornhill, A, 2012). This method is very fast, readily available, and cost-effective, making it an attractive option for most researchers (Henry, Gary T., 1990).

In the context of this study, 20 experienced educational counselors provided counseling to teachers. The research instrument was the Needs Analysis Module Questionnaire. This questionnaire was developed by the researcher. Questionnaire instruments can be developed by the researcher or adapted from other researchers (Azjen, 1991; Armitage & Corner, 2001). The questionnaire method is seen as a way to assess the need for certain materials or research objectives to be studied. The questionnaire instrument is divided into three sections: module development needs, stress management program needs, and stress management programs conducted (open-ended questions). There are 6 items on module development needs, 8 items on stress management program needs, and 4 items on stress management programs conducted (open-ended questions). The collected data were analyzed using SPSS software. Quantitative data were analyzed using descriptive statistics, and qualitative data from interviews were categorized and thematically analyzed.

A pilot study was conducted for the reliability of the needs analysis questionnaire for module development. Fraenkel, Walen, and Hyun (2012) and Pallant (2016) explain that the reliability of a questionnaire refers to the degree of consistency of the scores obtained. Furthermore, Fraenkel, Walen, and Hyun (2012) explain that instrument reliability is the accuracy of the instrument in testing what is intended to be tested.

Cronbach's alpha method was used to obtain the reliability index for each construct. The Cronbach's alpha reliability index for the module development construct (6 items) was .771, and for the program management needs (8 items) it was .815. The acceptable Cronbach's alpha value is 0.7 (Pallant, 2016), while Cohen, Manion, and Marrison (2018) and Sekaran and Bougie (2016) state that the accepted Cronbach's alpha value is 0.8. The overall Cronbach's alpha value for the module development construct and program management needs was .904.

Meanwhile, there are 4 structured open-ended questions that need to be answered by educational counselors, including: 1) state a few program names (last 3 years) related to stress management organized/conducted by your Department, 2) are there any modular stress management programs conducted by your Department, 3) in your opinion, does the teacher stress management program need to be improved, and 4) state any of your views or comments related to teacher stress management.

Table 7 The Need for Stress Management Programs

Item	Matter	Respondent Statement
1	State a few program names (last 3 years) related to stress management organized/conducted by your Department	"Programs are held 3 times a year: early, mid, and end of the year"
2	Are there any modular stress management programs conducted by your Department?	"Yes, but not standardized"
3	In your opinion, does the teacher stress management program need to be improved?	"Needs improvement and should align with current teacher needs in managing stress"
4	State any of your views or comments related to teacher stress management	"A module to help teachers manage stress is greatly needed as a guide for educational counselors in helping to address stress among teachers"

10. Discussion

The analysis findings show that the questionnaire items conform to the constructs measured in the study. However, several issues need to be rectified based on comments, views, and suggestions from expert evaluators. The researcher has improved unclear items to precisely measure what is intended. A total of 18 items were used in this study to develop a stress management module among teachers. The positive views from expert evaluators on this questionnaire indicate high validity.

Overall, the results of the validity and reliability analysis of the needs analysis questionnaire for developing a stress management module indicate that it is a high-quality and reliable tool. A meticulous process was followed in this study to ensure the content validity and reliability of the questionnaire, and the results support its use in this study. With a valid and reliable questionnaire, the needs analysis study for the development of a stress management module for teachers will provide high-quality and relevant data for understanding the needs and challenges faced by teachers regarding stress issues.

The findings also show that the needs analysis questionnaire for the development of a stress management module has good reliability for the module development and program needs constructs, with a Cronbach's Alpha reliability coefficient of .904. This demonstrates the consistency and reliability of the developed questionnaire instrument in

measuring the intended constructs, based on high validity and reliability values across the entire questionnaire and the sub-scales studied. The data obtained from this questionnaire will help to gain a clearer and more detailed understanding of the needs and challenges experienced by teachers in dealing with stress issues and, at the same time, can reduce the stress they face.

11. Conclusion

In Conclusion, the needs analysis questionnaire for the development of a stress management module for teachers has good validity and reliability for use. The importance of questionnaire validity and reliability in needs analysis is to ensure that this stress management module is developed to be truly relevant and useful to educational counselors. By considering these views, the stress management module can be tailored to the specific needs of teachers in managing stress. With the development of this effective and reliable stress management module, it is hoped that the module can provide accurate and relevant support to teachers facing stress. Therefore, this study provides strong justification for paying attention to the importance of questionnaire validity and reliability in the needs analysis for the development of a stress management module among teachers in Malaysia.

12. Author Contribution

The primary author was fully responsible for the main concept, research design, fieldwork execution, data analysis, and drafting the manuscript. The co-authors contributed to the manuscript review, editing, research supervision, and final approval of the manuscript. All authors actively reviewed the results and approved this version of the manuscript for publication.

13. Conflict of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the objective work reported in this paper.

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16. Ethics Declarations

This study received ethical approval from the Research Ethics Committee of Universiti Kebangsaan Malaysia (UKM) prior to its implementation. All participants were provided with clear information regarding the purpose of the study, the data collection procedures, and their rights as research participants. Written informed consent was obtained from all participants before their involvement in the study. Participation was entirely voluntary, and participants were informed of their right to withdraw from the study at any time without any consequences. The confidentiality and anonymity of all participants were strictly maintained, and all data collected were used solely for research purposes. No personally identifiable information was disclosed in any publication or report arising from this study.

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