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SHORT PAPER

Creating a Draft Version of the Self-care Actions in Mental Health for Workers Inventory and Verifying its Content Validity

Eri NAGASHIMA [1]   Harumi KATAYAMA [1]

1) Hamamatsu University School of Medicine, Japan

ABSTRACT

Aim: The aim of this study was to create a draft version of the Self-care Actions in Mental Health for Workers Inventory in order to grasp the mental health self-care of workers at the action level, and to verify the inventory's content validity.

Methods: A literature search was conducted using the keywords "inventory", "self-care" and "original article" using the Japan Medical Abstracts Society Database. Articles on inventory development were extracted and an item pool was created based on the extracted articles. Items were included even if they were not directly related to mental health as it was assumed they could be revised. As the theoretical foundation for inventory development, the concept of self-care agency by nursing theorist, Orem, was used. In order to ensure content validity, study meetings were conducted by nursing researchers to verify whether the items, introduction and responses were difficult to understand, and whether the item contents were suitable for measuring actions based on self-care agency.

Results: An item pool consisting of 53 items was created. Of these, some items were revised or combined because they were similar to other items.

Conclusion: A 51-item draft version of the Self-care Actions in Mental Health for Workers Inventory was created, and its content validity was verified.

＜Key-words＞

action, inventory, mental health, self-care, worker

e.naga@hama-med.ac.jp（Eri NAGASHIMA; Japan）

I. Introduction

Increasing attention is being paid to the mental health of workers in Japan. The number of workers' compensation claims, including death, for mental disorders was 1,732 in 2017 (Ministry of Health, Labour and Welfare, 2018), about twice as many as 10 years ago.

Up to the present, the Ministry of Health, Labour and Welfare has indicated "guidelines for maintaining and promoting workers' mental health" (mental health guidelines) and stated the importance of self-care, in which workers themselves are aware of stress and take measures to cope with and prevent it (Ministry of Health, Labour and Welfare, 2015).

Stress researchers Lazarus and Folkman (1984) stated that coping with stress involves both cognitive and behavioral effort. Therefore, self-care requires behavior in addition to awareness. In addition, nursing theorist Orem (2001) stated that the concept of self-care agency, which is human capability and self-care power in self-care, is important. She also stated that "self-care is human endeavor, learned behavior, that has the characteristics of deliberate action" (Orem, 2001). Regarding action and behavior, philosopher Charles Taylor stated behavior with strong intention is extracted as actions (Umekawa, 2017). In other words, the actions brought by self-care agency are important for self-care. Therefore, in order to support self-care, it may be essential to pay attention to actions.

To date, multiple scales related to self-care have been developed (Honjo, 1997 & 2001; Kasuya, Funakoshi & Nagae, 2011; Ogasawara, Shiihara & Ando, 2013; Tanimura, Morimoto & Hagino, 2014). However, to the best of our knowledge, there is no inventory of self-care for workers' mental health. Taking all of this into account, the aim of this study was to create a draft version of the Self-care Actions in Mental Health for Workers Inventory (SAMHW-I) in order to grasp the mental health self-care of workers at the action level and to verify the inventory's content validity.

II. Methods

1. Creating the Item Pool

The concept of self-care agency proposed by Orem (2001) was used as the theoretical foundation for inventory development. Since cultural factors affect self-care agency (Orem, 2001), it was necessary to thoroughly investigate domestic Japanese research papers to date. Therefore, a literature search of the Japan Medical Abstracts Society Database was conducted using the keywords "inventory", "self-care" and "original article". Articles on inventory development were extracted, and an item pool was created based on the extracted articles. Items were included even if they were not directly related to mental health as it was assumed they could be revised.

2. Verifying Content Validity

In order to ensure content validity, it was necessary to investigate the face validity and logical validity of the draft inventory. Therefore, a total of five study meetings were held between 12 nursing scientists belonging to the Graduate School of A University from January 2018 to February 2019. The first study meeting focused on the clarity of the introductory text, difficult-to-understand items and response choices to confirm face validity. The second study meeting focused on verifying the logical validity, and whether the items were suitable for measuring actions taken for self-care agency.

Using Orem's (2001) following explanation of self-care agency, five frameworks that explain actions brought about by self-care agency were created: "Self-care agency is conceptualized as including the ability to attend to specific things and to understand their characteristics and the meaning of the characteristics, the ability to apprehend the need to change or regulate the things observed, the ability to acquire knowledge of appropriate courses of action for regulation, the ability to decide what to do, and the ability to act to achieve change or regulation". The five frameworks were divided as follows: [paying attention to specific matters to understand the characteristics and their significance], [understanding the need to change and regulate observed matters], [acquiring knowledge on a series of actions necessary for regulation], [making decisions on tasks to perform], and [achieving change or regulation]. Furthermore, in this study, the framework of [achieving change or regulation] was regarded as coping with stress. Then the five frameworks were collated using the items with confirmed face validity.

III. Ethical Considerations

This study was a literature review and was not targeted at people. Therefore, ethical considerations did not apply.

IV. Results

1. Creating the Item Pool

In the literature search, 481 articles were extracted, 10 of which were domestic Japanese papers related to concepts of self-care (Honjo, 1997 & 2001; Takahashi, Nakamura, Kinoshita et al., 2000; Wei, Yonemitsu, Harada et al., 2000; Igarashi, Nakano, Nakaya et al., 2006; Yamashita & Okamura, 2008; Kasuya, Funakoshi & Nagae, 2011; Ogasawara, Shiihara & Ando, 2013; Kawata, Hatashita & Kinjyo, 2014; Tanimura, Morimoto & Hagino, 2014). However, because of the lack of elements on "self-acceptance" (Orem, 2001), as mentioned in Human Capabilities and Dispositions Foundational for

Self-care Agency, one foreign journal article (Kearney & Fleischer, 1979) was also was included as a reference. The total number of items in the pool was 53.

Regarding the potential responses, the researchers discussed whether to ask about frequency (e.g., "always" or "never") or degree (e.g., "think" or "do not think"). Since the contents of the items were related to actions, the four responses selected asked about the frequency of actions ("1. never", "2. seldom", "3. usually", and "4. always").
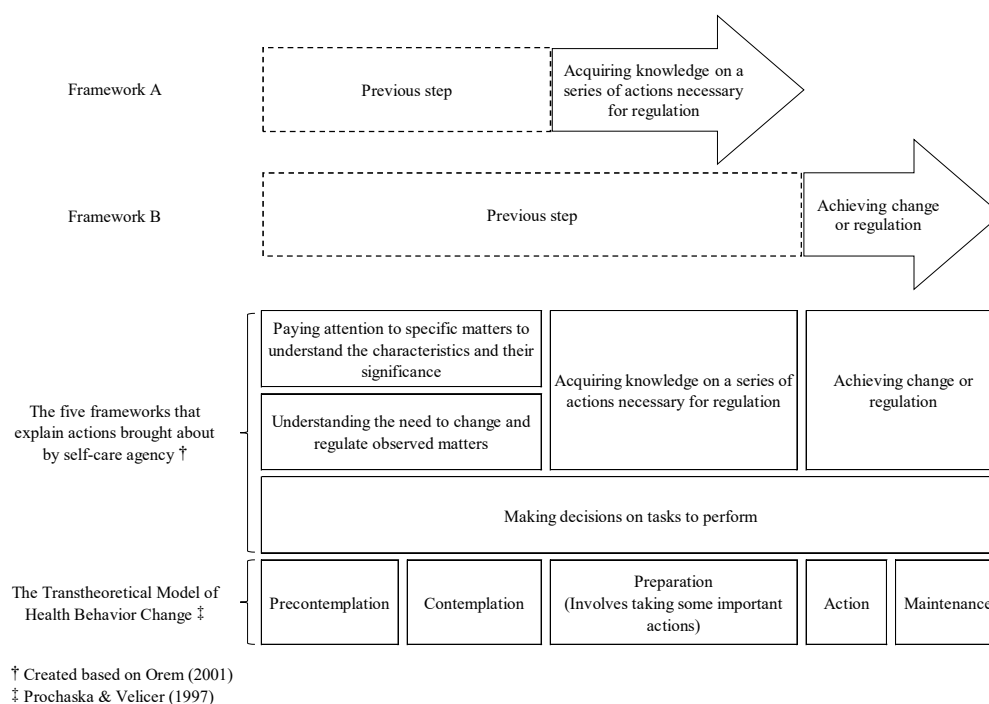
2. Face Validity

During the study meetings, we first discussed the two items of "viewing management of physical condition as a personal responsibility" and "telling yourself that it is not a big deal if you fail". Since "viewing management of physical condition as a personal responsibility" was created as a reversal item, opinions were divided in terms of whether or not it should be a reversal item. When reviewing items in the item pool that were taken from previous references, it was confirmed that this item should be created with the intention of putting value on health. However, this item was later removed because there was another item intended for this action. As for "telling yourself that it is not a big deal if you fail", it was pointed out that the content was similar to another item. Therefore, this item was integrated into "encouraging yourself when you are depressed".

For the introduction, the instruction "Please put only one answer that best applies to you" was initially given, but some researchers felt this could be ambiguous for some of the items. Therefore, the instructions were changed to "Imagine the difficulties in your duties and choose only one answer that best describes you".

3. Logical Validity

Items were collated with the five frameworks that explain actions brought about by self-care agency. During the study meetings, it was pointed out that these five frameworks might have a sequence. Prochaska and Velicer (1997), who are widely known health psychologists, presented "The Transtheoretical Model of Health Behavior Change" for changes in health behavior. This model clarifies that health behavior change goes through the stages of "precontemplation", "contemplation", "preparation", "action" and "maintenance" (Prochaska & Velicer, 1997). Therefore, the five frameworks were verified using "The Transtheoretical Model of Health Behavior Change" (Figure 1).

† Created based on Orem (2001)
‡ Prochaska & Velicer (1997)

<Figure 1> Frameworks A and B of this study based on self-care agency and the transtheoretical model of health behavior change

Because instances unrelated to one's intentions cannot become actions (Umekawa, 2017), [paying attention to specific matters to understand the characteristics and their significance] and [understanding the need to change and regulate observed matters] were noted to be contents that could be a previous step to an action. These frameworks were therefore confirmed to correspond to the precontemplation and contemplation stages. The framework [acquiring knowledge on a series of actions necessary for regulation] was identified as a potential previous step to an action because knowledge for intention is necessary for an action. However, people in the preparation stage typically have experienced taking some significant action in the past year (Prochaska & Velicer, 1997). The preparation stage was therefore confirmed to include an action. Next, in instances where knowledge of a series of actions is regarded as necessary for [achieving change or regulation], the framework of [acquiring knowledge on a series of actions necessary for regulation] lasts from the preparation stage to the action stage. This framework was therefore confirmed to be the stage at which knowledge is partially obtained to initiate an action. The framework [making decisions on tasks to perform] confirmed that no actions take place without decision making and that this is the premise of the other four frameworks.

Based on the above, framework A and framework B were created for collation. Framework A was confirmed to be the action of [acquiring knowledge on a series of actions necessary for regulation] with the previous steps of [paying attention to specific matters

to understand the characteristics and their significance], [understanding the need to change and regulate observed matters], and [making decisions on tasks to perform]. Framework B, meanwhile, was confirmed to be the action of [achieving change or regulation] with the precursors of [paying attention to specific matters to understand the characteristics and their significance], [understanding the need to change and regulate observed matters], [acquiring knowledge on a series of actions necessary for regulation], and [making decisions on tasks to perform] (Figure 1).

Frameworks A and B were collated with item contents. As a result, draft items 8, 12, 14, 22, 39 and 41 were matched with framework A, while all other items were matched with framework B. Ultimately, a draft inventory with 51 items was created (Table 1).

V. Discussion

1. Content Validity

The face validity reflected the points made in the study meetings and the draft inventory created was therefore considered to have guaranteed face validity. As for the logical validity, the frameworks created in the study meetings matched the collation of item contents. The draft inventory was therefore considered to have guaranteed logical validity.

A point to consider is that a large difference exists in the number of items corresponding to framework A and framework B, respectively. It is normally undesirable to have a large difference in the number of items when viewing these items as subscales. However, instances of accident compensation for death from overwork and other incidents are approximately two-fold what they were 10 years ago (Ministry of Health, Labour and Welfare, 2017). The likelihood that implementation of self-care actions in mental health for workers has reached the level of actions [with change or regulation] is therefore considered low. This draft inventory contains a substantial number of items that query the action of [achieving change or regulation]. This means that the action of [achieving change or regulation] has the potential to sensitively measure changes in an action up until the point it is implemented. The difference in the number of items corresponding to frameworks A and B is therefore not believed to have an effect on the logical validity.

In accordance with the above, a draft version of the SAMHW-I was completed and its content validity was confirmed.

2. Applications and Limitations

Self-care agency is said to be developed "in the course of day-to-day living through the spontaneous process of learning" (Orem, 2001). Therefore, the draft inventory developed in the present study is expected to be utilized as an evaluation tool for self-care education in mental health. However, statistical verification of the inventory is necessary and is currently being conducting.

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<Table 1> Draft Version of the Self-care Actions in Mental Health for Workers Inventory

Framework A	
	8. Learning new information about the effects of poor mental health.
	12. Confirming whether or not information you have obtained on mental health is correct.
	14. Confirming the results of a stress check.
	22. Implementing lessons you have learned from mental health training and other sources in accordance with your lifestyle.
	39. Undergoing a stress check.
	41. Looking through information on mental health.
Framework B	
(r)	1. Adapting to your surroundings even if this takes effort.
	2. Trying to find some kind of meaning in painful experiences.
	3. Considering the cause of your sadness when you are sad.
	4. Trying not to think about depression when you are depressed.
	5. Adopting a humorous perspective to overcome difficulties.
	6. Accepting times when something painful occurred as tests by invisible forces (such as gods or fate).
	7. Consciously switching to a different way of thinking when you are bound by self-reproachful thoughts.
	9. Being able to say at what times you are prone to feeling depressed.
	10. Attending workshops on mental health.
	11. Being able to say that you like yourself.
	13. Finding medical professionals in mind who you can consult when your physical condition has deteriorated.
	15. Finding someone who will empathetically listen to your concerns.
(r)	16. Working hard at everything no matter how painful times are.
	17. Finding someone who will think of your situation and give you advice.
	18. Conveying your own intentions without holding back.
	19. Creating a relaxing environment when you are unable to sleep.
	20. Consulting those around you before you lose your emotional breathing room.
	21. Making time to spend with family and friends.
	23. Using relaxation techniques that suit you.
	24. Using personal tricks to maintain your mental stability when the need arises.
	25. Getting a sufficient amount of sleep.
(r)	26. Carrying your work-related stress over to your private life.
	27. Trying out any available new methods of maintaining your mental health.
	28. Endeavoring to eat a regular, balanced diet.
	29. Consoling yourself when you are feeling down.
	30. Using stress-relieving techniques that suit you.
	31. Transforming lessons you have learned from mental health training and other sources into actions.
	32. Consulting a medical professional when your insomnia persists.
(r)	33. Confronting difficulties without relying on those around you no matter how painful times are.
	34. Finding someone who will support you.
	35. Adjusting your work or private life when you have no emotional breathing room.
	36. Finding someone who will comfort you.
	37. Taking breaks so you do not overdo it.
	38. Finding someone with whom you can share your true feelings.
	40. Understanding your own limitations.
(r)	42. Pretending things are alright no matter how painful times are.
	43. Choosing to prioritize your health.
	44. Prioritizing what you feel is necessary.
	45. Paying attention to your emotional ups and downs.
(r)	46. Encouraging yourself when you are depressed.
	47. Refreshing yourself when you are melancholy.
	48. Analyzing what the problem is when you are confronted with difficulty.
(r)	49. Encouraging yourself not to be satisfied with the status quo no matter the situation.
(r)	50. Considering that you might fail when you are doing something difficult.
	51. Using techniques to stabilize your mood when you are feeling down.

VI. Conclusion

A draft version of the SAMHW-I was created and its content validity was verified. In the future, statistical testing of the accuracy of the inventory will verify its reliability and validity.

Acknowledgment

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