

SHIS and WEMS

An instrument development work has been going on at Kristianstad University for several years, due to the current lack of measurement instruments for the experience of work and health from a salutogenic perspective. The questionnaires SHIS and WEMS are results of this development work that has been undertaken by PhD Åsa Bringsén and PhD Petra Nilsson Supported by Associate Professor Ingemar Andersson and Professor Göran Ejlertsson. SHIS and WEMS have been developed and scientifically tested within the framework of work related health promotion programs at two different hospitals in southern Sweden. The results have shown that both instruments has high validity as well as reliability. The instruments can be connected with a working model for health promotion at work, where the instruments are used as dialogue tools.

SHIS:

Bringsén Å, Andersson HI, Ejlertsson G. Development and quality analysis of the salutogenic Health Indicator Scale (SHIS). Scand J Publ Health 2009; 37:13-9.

WEMS:

Nilsson P, Bringsén Å, Andersson HI, Ejlertsson G. Development and Quality Analysis of the Work Experience Measurement Scale (WEMS). WORK 2010; 35: 153-61.

Dialogue tool:

Nilsson P, Andersson HI, Ejlertsson G, Blomqvist K. How to make a workplace health promotion questionnaire process applicable, meaningful, and sustainable. Journal of Nursing Management, 2011; 19 (7), 906-914

SHIS - Salutogenic Health Indicator Scale

SHIS is associated with a salutogenic and holistic description of health, which has been developed with support from theories related to the concepts of health and wellbeing;

Health is a positive subjective experience of oneself as a whole. Health is measurable by using individuals' feelings/experiences of physical, mental and social well-being as indicators. Health can be promoted by an individual's positive experiences/emotions, and health serves as a resource for the individual when dealing with the various strains of everyday life or pursuing their individual goals. Illness is important since it might restrict an individual's ability to act.

SHIS is a semantic differential - every question is answered on a six-point scale that goes from positive to negative - consisting of twelve questions that can be divided in two different dimensions of health indicators, one that is intrapersonal and one that is interactive. They are entitled IntraPersonal Characteristics (IPC) and InterActive Function (IAF).). IPC consists of question A, B, C, D, I, J and L, while the IAF consists of questions E, F, G, H and K. Question H has been reformulated since the article about the instrument's development was published.

The analysis of the responses consists of index values of the two-dimensional issues. You can also add up the results of the answers to all the questions included in the instrument, for a value of health indicators overall. The higher the value the better indicators of health.

This is how you do it in practice: For each individual, the index values are calculated. Each question can at most give value 6 (if positive responses) and minimum value of 1. For IPC the index value is the sum of the seven questions A, B, C, D, I, J and L. It can at most give value 42 with positive answers to all the questions. As a minimum, the value 7 is obtained. The index value of IAF is the sum of the five questions E, F, G, H and K, which give values in the range of 30 to 5.

A total index is calculated by summing the two index values or the sum of all twelve questions. It means a maximum positive index value of 72 and the corresponding lowest index value of 12.

Different groups can be compared by calculating the appropriate mean and spread measures, including for instance mean and standard deviation for each group. In addition, of course index values can be analyzed by a number of other more or less sophisticated analysis methods.

With only twelve questions, the instrument is small in size and therefore useful in various contexts where the aim is to measure indicators of health from a salutogenic and holistic perspective.

WEMS - Work Experience Measurement Scale

WEMS is a multidimensional questionnaire containing questions about their experiences of work and a work situation. The questions were developed based on theories that can be linked to sense of coherence, flow, regenerative work, and the demand-control-support as well as the effort-reward model. The content of the questions provides the opportunity to measure people's experiences of salutogenic work factors. The instrument has six dimensions of work experience: supportive working conditions, internal work experiences, autonomy, pressure of time experience, management and reorganization.

Analysis is based on the index values of the questions belonging to the six dimensions.

This is how you do it in practice: For each individual, the index values are calculated. Each question can at most give value 6 (if positive responses) and minimum value of 1. For each index/dimension an index value is calculated through the sum of the answers to the questions belonging to each dimension. The possible range of index values are the following:

Supportive working conditions (7 questions): 7-42

Internal work experiences (6 questions): 6-36

Autonomy (4 questions): 4-24

Pressure of time (3 questions): 3 -18

Management (6 questions): 6-36

Reorganization (6 questions): 6-36

Different groups can be compared by calculating the appropriate mean and spread measures, including for instance mean and standard deviation for each group. In addition, of course index values can be analyzed by a number of other more or less sophisticated analysis methods.

The instrument is relatively short; it has 32 statements to consider through six response options ranging from *Strongly Agree* to *Strongly disagree*. The questions are formulated in a positive way so that the result can be interpreted from a salutogenic perspective.

Standardization

It is possible to standardize the index values for SHIS and WEMS. A standardization makes the results easier to understand and compare. The standardization is done so that all index values varies between 0 and 100% regardless of their initial range of variation. The standardized index value is calculated as follows: $100 \times (\text{index value} - \text{minimum of theoretical value}) / (\text{maximum} - \text{minimum})$.

Example: A person has an index value of 24 for management index, whose range of variation is 6 - 36. The standardized value is then $100 \times (24-6) / (36-6) = 100 \times 18/30 = 60\%$. If the index value is 6 the standardized value is 0%, and if the index value is 36 the standardized value becomes 100%.

Use

You are now able to use the questionnaires, singly or together, for own studies in accordance with your stated purpose without charge. The questionnaires may not be changed in content or design but can be used in combination with other questions or questionnaires. Any other use or copying is not permitted. After completing the study, we are grateful to receive a copy (digital or hard copy) of the report, article or other presentation of results, where one or both questionnaires have been used. This allows us to create a better theoretical and practical knowledgebase over the two instruments. They can be sent to;

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Best regards

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