How do Pre-Service Teachers Feel?

SOCITS: Questionnaire Development Description

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Abstract

The global orientation known as Sense of Coherence (SOC) describes coping resources at the disposal of an individual. Antonovsky (1998) developed a questionnaire that examines SOC in the context of life situations. SOC served as grounds for the researchers wish to understand coping resources available to teachers and pre-service teachers.

The research sought to develop a questionnaire that examines Sense Of Coherence In Teaching Situations – SOCITS. The results revealed a valid and reliable questionnaire, thus it can be said that this questionnaire is an effective tool for examining and empowering the teachers and pre-service teachers SOCITS.

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Keywords: SOC; SOC questionnaire; SOCITS; SOCITS questionnaire; coping resources; pre-service teachers; teachers.

1. Introduction

Stress reflects the relationship between individual and environment, the abilities of the individual and the characters of the environmental event altogether (Lazarus and Folkman, 1984). Internationally, research studies have confirmed that teaching is ranked as one of the most stressful occupations in recent years (Billingsley, 2004; Chaplain 2008 in Klassen et al., 2013). The process of teaching is complex and requires coping in academic, emotional and behavioral areas. Numerous studies support pre-service teachers reports they perceive the academic life (studies and field experience) as stressful as
a result of the combination of external pressures and personal expectations (Fischl & Sagy 2009) and as requiring coping which affects a whole array of variables (Heiman, 2004).

Several coping models can enable an examination of coping resources available to pre-service teachers in teaching situations.

The review of coping resources used by teachers reveal that teachers, in their coping with stress, resort to their personal resources and rely on them.

Sense of Coherence as a global orientation was found to be a coping resource that may allow a better understanding of the coping process that incorporates behavioral and cognitive reactions (Antonovsky, 1998). Antonovsky (1998) developed the SOC questionnaire, for assessing the general Sense of Coherence in the context of various life situations. This questionnaire does not relate to specific situations as teaching situations generate. Therefore, the research aim was developing a questionnaire that examines SOC in the context of teaching situations.

The field generated the need for this research. The researchers, who are engaged in the field of pedagogical instruction for many years, have seen the need to find the apposite way to support the pre-service teachers and enable them to develop their sense of coherence in teaching situations.

2. Theoretical Foundation

Policy makers, educators and researchers view teaching as a complex, multidimensional and dynamic profession (Barrett Kutcy & Schulz, 2006; Chan, 2007; Karsenti et al. 2008; Romano, 2008; Tuval and Or, 2008; Buchanan, 2010; Schatz-Oppenheimer, 2011; Skaalvik & Skaalvic, 2011). Contemporary pedagogy assert that the structure of learning has to be flexible and suited to the economic, technological, social and cultural changes in the state and in the education system (Vidislavski et. al., 2010). The education system and the teachers have to accommodate the changes in perception of the essence of knowledge and teaching processes. They are required to cope with a variety of processes (Vidislavski et. al., 2010).

Several factors have been suggested to explain the reason for teaching’s complexity and the teachers’ coping mechanisms: The fields of knowledge, Teaching skills, The complexity of the class, Parental and community involvement.

In light of these factors, it can be understood why teaching was presented in internationally research as one of the more stressful occupations in recent years (Billingsley, 2004; Chaplain 2008 in Klassen et al., 2012).

SOC (Sense of Coherence), the concept developed by Antonovsky (1998), is one of the personality components that influence the individual’s ability to cope.

2.1. Sense of Coherence

Based on Lazarus and Folkman (1984) description of the coping process, Antonovsky (1998) developed the concept of Sense of Coherence (SOC) based on an examination of health-promoting factors in his Salutogenic model, seeking to explain why certain people seem to be stable, strong and healthy, whereas others become weak and ill in stressful situations. Contrary to the pathogenic
approach that seeks to identify the causes of diseases and defines health as its dichotomous pole on a health and disease continuum, Antonovsky’s perspective postulates health is a movement on a continuum between ease and dis-ease, focusing on what brings about health by trying to identify the origin of health, in contrast to.

Defined as a critical personality aspect that affects an individual's coping abilities, SOC is a personal way of being, thinking and acting, which relies on three main aspects: comprehensibility, manageability and meaningfulness. This global orientation is based on an individual's inner faith, leading him/her to identify available coping resources, use them and benefit from them (Drageset et al., 2008). SOC is an expression of the level of one's enduring and constant yet dynamic sense of confidence, in one's familiar, expected, relatively easy to explain environment. Sense of Coherence develops and stabilizes by the age of 30 and even tends to increase with age over the whole life span (Bental and Sagi, 2012).

Components of SOC

SOC, which depicts an individual view of his/her environment, consists of the following three components:

- **“Comprehensibility”** - a cognitive component describing the level of an individual's sense that he/she can understand life events and predict future directions of development. This component is based on consistent experiences which help an individual make sense of what is happening in his/her life even when unexpected or bad things happen (Antonovsky, 1986).

- **“Manageability”** – a behavioural component describing the level of an individual's coping with various stimuli in the internal and external environment, by relying on the resources that are required for coping in day-to-day as well as extreme situations, which he or she considers manageable and their consequences (Skarsater et al., 2008, at Jacobs, 2010).

- **“Meaningfulness”** - an emotional component describing the feeling that an individual has a significant role in shaping his/her day-to-day experiences (Antonovsky, 1998). Meaningfulness is also considered a motivational component, as an individual believes in coping with challenges with dignity and while finding meaning in them (Skarsater et al., 2008, at Jacobs, 2010). This component is based on the belief that life is interesting, significant and bring about satisfaction, and there is reason to invest in caring and coping.

People who have developed a high SOC tend to perceive their situation as understandable, manageable and meaningful. Antonovsky (1998) noted that individuals are identified as having a high Sense of Coherence when their score on these three components is high; a high SOC suggests that an individual has resources (such as social support and ego identity) that enable him/her to cope with different stressful life events. when their score is low, they have a low Sense of Coherence, and thus do not cope very well.

Antonovsky (1986) believed that although these three SOC components are closely connected, they remain three distinct components that are essential but not equally important. Meaningfulness appears to be more crucial than Comprehensibility and Manageability, as these two will not last without Meaningfulness. The second component in its importance is Comprehensibility, as there is a need for
understanding to establish Manageability. Though the least important, Manageability is still important! If an individual does not believe in his/her possession of coping resources, Meaningfulness means less and efforts to cope may fail. Therefore, all SOC components yield successful coping. As the strength of each component increases or decreases SOC strength increases or decreases. SOC component formation is different for each individual and a different relative contribution each component makes to his/her SOC (Sullivan, 1993 in Griffiths, 2010).

2.2. SOC Questionnaire

A reliable and valid Orientation to Life Questionnaire (OLQ), comprising 29 questions (SOC-29) constituted Antonovsky's practical realization of his theory (Antonovsky and Sagy, 1986; Eriksson & Lindström, 2006). Reliability and validity of the SOC showed a high level of Cronbach alpha ranging from 0.84 to 0.93 and a high degree of internal consistency (Antonovsky, 1987). Later, a shorter version with only 13 questions (SOC-13) was introduced.

Antonovsky preferred to use the questionnaire on the grounds of its general score only, without relating specifically to the three dimensions of the tool – Comprehensibility, Manageability and Meaningfulness. The explanation according to Antonovsky (1998) lies in the uniqueness and the strength of the combination between those dimensions.

Nevertheless, when the connections were examine between the components of the concept, it was found that there are high, but not perfect correlations, so a person can get a high score for one component and a low score in another (Antonovsky, 1987). Antonovsky (1987) explained an interesting finding – a person can have a strong Sense of Coherence, but not experience his entire world as coherent, and so we can understand there are individual differences in the Sense of Coherence. With one person, it can be comprehensive, while with another it may be narrow and directed at one specific domain. Bental and Sagi (2012) have expanded that issue in their research and referred to each dimension separately and to the questionnaire as a whole.

Several studies have examined Sense of Coherence as a coping resource for students from different fields of knowledge: it was found that students with a high SOC were more successful in coping with stressful situations; students with higher state of anxiety were found to have a lower SOC in academic situations; those with a high SOC reported a general feeling of wellness more than those with a low SOC (Sarid et al. 2004; Grayson, 2008).

3. Problem Statement

There is little knowledge about Sense of Coherence as a teachers' coping resource; there is even less knowledge about SOC with pre-service teachers.

4. Purpose of the Study

The research aim was to develop a questionnaire that would examine Sense Of Coherence In Teaching Situations among per-service teachers.
5. Research Methods

In order to develop a questionnaire that will reveal the sense of coherence of the pre-service teachers in the field of teaching, the research was conducted in two phases:

A. Developing the questionnaire by phrasing the items and validating the content by experts.
B. Testing the validity and reliability of the questionnaire by statistical analyze.

5.1. Research population

Pre-service teachers in their third year of studies with different teacher education routes (elementary school, junior high school and special education) at a college in central Israel (N=110) constituted the research population.

5.2. Tools

- SOC questionnaire: Orientation to Life Questionnaire (OLQ), comprising 29 questions (SOC-29), which Antonovsky used to implement his theory. The questionnaire measures the three interrelated components of sense of coherence: comprehensibility (11 questions), manageability (10 questions) and meaningfulness (8 questions). The scale is 7-point Scale from low grade (1) to high grade (7). Some of the questions are phrased in negative direction and have to be equalize with the general direction of the scale. Reliability and validity of the SOC questionnaire showed a high level of Cronbach alpha ranging from 0.84 to 0.93 and a high degree of internal consistency (Antonovsky, 1987).

- Sense of Coherence in Teaching Situation questionnaire: The questionnaire "How do students feel" comprising 40 statements, measuring the three interrelated components of sense of coherence in teaching situation: comprehensibility in teaching situations (10 statements), manageability in teaching situations (13 statements) and meaningfulness in teaching situations (17 statements). The scale is 6-point Likert scale (1 - not at all; 6 - to a great extant). Some of the questions are phrased in negative direction and were equalized with the general direction of the scale.

5.3. Research procedure

The development of the questionnaire was in two phases:

**Phase A** - has three stages:
Stage 1 - phrasing the items by the researchers.
Stage 2 - validating the content by experts.
Stage 3 - choosing the suitable scale.

**Phase B** - After defining the first version, the questionnaire and the SOC questionnaire were distributed to and data was collected from all the 110 pre-service teachers who participated in the three training routes at a college in central Israel. This procedure allowed finding discriminant validity and reliability of the questionnaire.
6. Findings

6.1. Phase A - Developing the questionnaire in three stages

The aim of this phase was phrasing the items of the questionnaire, validating the content by experts and choosing the suitable scale.

**Stage 1 - Phrasing the items by the researchers:** The researchers, who are specialized teacher educators, phrased the statements in the various items regarding Comprehensibility, Manageability and Meaningfulness, the three Sense of Coherence components, as expressed in teaching. The new statements were congruent to teaching situations. To prevent the halo effect some statements were formulated in a negative direction.

**Stage 2 - Validating the content by experts.** Evaluating the items by educational experts in three encounters. In each session, the "experts" were presented with statements engaging in one of the dimensions regarding the term "coherence". The participants received the list of statements and were asked to mark those which were not clearly phrased or were repetitive as can be seen in Table 1. The statements have been changed because of several reasons: language mistakes; social desirability; duplication of statements; multiple topics in one statement; the direction of the statements. In addition, sentences were added for deepening and expanding the understanding of each dimension or were taken out.

<table>
<thead>
<tr>
<th>SOC components in teaching situations</th>
<th>Example of statements as were phrased by the researchers</th>
<th>First change of statements by experts</th>
<th>Second change of statements by experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensibility: Understanding the principles of lesson planning and teaching:</td>
<td>I feel confused in the process of teaching in class, when the lesson procedure does not match my plan (negative direction)</td>
<td>I feel confused while teaching, when the lesson procedure does not match my plan (negative direction)</td>
<td>When the lesson procedure does not match the plan, it confuses me (negative direction)</td>
</tr>
<tr>
<td>Manageability: Didactic and pedagogical principles in lesson management</td>
<td>When I have behavioral problems in my lesson, I can manage them</td>
<td>Was taken out</td>
<td>When a pupil bursts, I offer him/ her ways to relax.</td>
</tr>
<tr>
<td>Meaningfulness: Importance and significance of teaching for pre-service teachers.</td>
<td>Even if learning difficulties and disruptions will appear, I will keep trying to teach</td>
<td>- Even if learning difficulties will appear, I will keep trying to teach - Even if disruptions will appear, I will keep trying to teach</td>
<td>Even if pupils disrupt I will keep trying to teach</td>
</tr>
</tbody>
</table>

**Stage 3 - Choosing the suitable scale:** A 6-point Lickert Scale (between 1 = "Not at all", and 6 = "To a Great Extent") was chosen. The use of an even or odd number of scale points and the meaning of the mid-point – (A) a neutral stand; (B) undecided (Raaijmakers et al., 2000) was deliberated.

Other researchers noted that when they choose the mid-point as their response, participants tell us that they either have no opinion or they are not sure that their response is moderate, or that they are not
certain about the meaning of an item (Clark and Watson, 1995, Schuman and Presser, 1996 in Lam et al., 2010).

In contrast, an even scale points (e.g. six points), provides three degrees of negative answers and three degrees of positive answers, and as such it does not allow the participants to avoid answering an item, and thus their choice constitutes a clear answer.

A scale without a mid-point was chosen for this research to minimize social desirability bias where participants seek to give what they believe to be a socially acceptable answer, that will help and please the researchers (Garland, 1991).

6.2. Phase B - Testing the validity and reliability

The aim of this phase was testing validity and reliability of the questionnaire and in compare to Antonovksy's questionnaire.

Discriminant Validity

Discriminant validity was tested by calculating and comparing Antonovksy's Sense of Coherence Questionnaire (1998) and SOCITS questionnaire. SOCITS was found to be significant within general SOC (-.47**). The three dimensions in Antonovksy's questionnaire were tested for Pearson coefficients, where significant correlations emerged for Manageability (.52**) and Meaningfulness (.39**), thus indicating a link between the two questionnaires, though with unique significance. The Comprehensibility dimension yielded a low non-significant correlation (.08), thus indicating no link between the questionnaires regarding this component. This means pre-service teachers do not have a high SOC in teaching situations, though they have a high SOC in general, and conversely, they may have a generally low SOC, but a high level of SOCIT.

Reliability

The reported questionnaire reliability and that for each component were high. Cronbach alpha measure of reliability was 0.77 (N=110), where the following measures were yielded for the different SOC components: Comprehensibility - 0.64; Manageability - 0.67; Meaningfulness - 0.79.

6.3. Determining the final version of the questionnaire

At the end of the process, 25 statements remained. These statements were determined to be suitable to examine pre-service teacher's sense of coherence in teaching situations, with a 6-point Likert scale as discussed above. The score of each component refers to the mean score of all items' components. The general score is the sum of the three components' score. The global score ranges between 25 and 150. Higher scores indicate a greater SOCITS.

The items of the questionnaire were divided as follows:

- Comprehensibility - 3 items (7, 17, 20) –
  When the lesson procedure does not match the plan, it confuses me.
- Manageability - 10 items (2, 6, 8,11, 13, 14, 15, 18, 21, 24) -
  I feel I can change the lesson even if it does not go according to my plan.
Meaningfulness - 12 items (1,3, 4, 5, 9, 10, 12, 16, 19, 22, 23, 25) -
I feel satisfied with teaching.

7. Conclusions

This pioneer research aimed at developing a questionnaire for examining the Sense of Coherence in the context of teaching situations. The questionnaire seeks to measure and assess pre-service teachers' global Sense of Coherence in teaching situations and its three components – Comprehensibility, Manageability and Meaningfulness.

A significant correlation was found between Antonovsky's SOC questionnaire (1998) and Sense of Coherence in Teaching Situations questionnaire. Validity testing revealed that Sense of Coherence in Teaching Situations has a unique significance and differs from general Sense of Coherence. It should be noted that the questionnaire's statements referred to the context of the world of teaching, and not only to the practice of the pre-service teachers.

Therefore, Sense of Coherence in Teaching Situations - SOCITS, can be considered the pre-service teacher/teacher level of a sense of confidence in familiar and expected teaching situations, and their belief that they will be able to cope and manage teaching situations in an optimal manner.

The SOCITS’ three components:
- **Comprehensibility** - (cognitive component) the level at which pre-service teacher and teachers consider teaching situations to be cognitively meaningful and predictable.
- **Manageability** - (behavioral component) the level at which pre-service teacher and teacher consider available coping resources to be satisfactory in their attempt to meet the external and internal stimuli demands in teaching situations.
- **Meaningfulness** - (motivational-emotional component) the level at which pre-service teacher and teacher perceive teaching situations as emotionally meaningful, and that at least some of the daily demands is more challenging than burdening.

It is important to note that whereas "Coherence in Teaching" is a term that focuses on teachers' actions in practice, the concept "SOCITS" focuses on teachers' feelings about their ability to cope with teaching situations.

The conclusions emerging from this research can be both practical and theoretical:

Practical conclusions –
- Sense of Coherence in Teaching Situations questionnaire is a valid and reliable questionnaire, a new tool in the researchers' toolbox. It is differ from Antonovsky's SOC questionnaire. Therefore, it can be said that SOCITS' questionnaire is a unique tool for assessing the pre-service teachers/teachers sense of coherence especially in teaching situations.
- SOCITS can be used as a guiding tool for the pedagogical instructors of the pre-service teachers/teachers, for promoting and developing SOCITS. It will help them focus on and advance their work. Possibly, an intervention program can be developed, for teaching SOCITS, its meaning and components.

Theoretical conclusions –
SOCITS, a concept that was conceived from Antonovsky's SOC concept, is an independent concept.

- It enriches the existing theoretical knowledge with regard to the concept of SOC.
- As for the population of the pre-service teachers and teachers, there is very small body of research coping resources available to them to cope with stressful situations in their day-to-day at schools (Pinder, 2008).

As such, SOCITS can constitute a possible coping resource for pre-service and in-service teachers as well as serve as theoretical grounds for a coping model for them to rely on. It makes it possible to identify comprehensibility, manageability and meaningfulness in teaching situations, the interactions between them, the connections and hierarchy of a SOC in teaching situations.

Since this research made use of the questionnaire among pre-service teachers for the first time, it is worthwhile to conduct further research in order to examine SOCITS among interns, novice teachers, and experienced teachers. The information that will be obtained will help both in the theoretical context of deepening our understanding of the concept and the questionnaire as well as in the practical context of extending support to the teachers.

References


