

# Evaluation of Sense of Coherence and Health Promoting Behavior among Dental and Medical Students: A Cross Sectional

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## ABSTRACT

Psychological well-being and health promoting behavior is an important aspect of human health and well-being. Significant aspects of health status and quality of life are health promoting practices and psychosocial well-being. The salutogenic notion focuses on those aspects or variables that assist a person in coping with stress, various physical and psychological difficulties or even infectious exposure. This hypothesis attempts to understand why are certain people able to keep? If not recover, their health in the face of adversity. To calculate SOC of students in dental and medical students. To assess the stress management part of health promoting behaviors of these students. This is a cross sectional study, undergraduate students ageing from 18 to 24 years of age will be selected and correlation between sense of coherence and health promoting behavior Pearson's correlation will be found out. It is expected that students with a higher sense of coherence score will exhibit better stress management and health promotion. Hence we will be able to find association between sense of coherence and stress management as a health promoting behavior in these students.

**Key words:** Sense of coherence scale, Comprehensibility, Manageability, Meaningfulness

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## INTRODUCTION

Psychological well-being and health promoting behavior is an important aspect of human health and well-being. Significant aspects of health status and quality of life are health promoting practices and psychosocial well-being. Health promoting activities use a number of ways to enhance the host, including health promotion, lifestyle changes, behavioral therapy, environment organizations and nutrition supplementation. People who take part in making decisions for their health while neglecting the social and environmental factors that contribute to their illness [1]. This salutogenic theory includes features or variables that enable individuals deal with stress, a variety of medical and psychological problems or even harmful stimulation. This even focuses at the elements of self-healing and self-regeneration. The hypothesis attempts to explain why humans can maintain, if not enhance, overall wellbeing in the face of adversity. The Sense of Coherence scale (SOC) is a scale which analyses way individuals view

life, with the goal of determining how individuals behave and use existing assets to solve obstacles and manage as well as grow their health, according to Harvard health. Aaron Antonovsky coined the term Sense of Coherence (SOC) in 1979 to describe why some ill under distress while others maintain good health.

SOC, according to Antonovsky is an entity that is stable that it peaks in emerging twenties and then plateaus around the age of thirty producing a personality, a personality trait that affects how people perceive the world. People with a higher SOC appear to be better equipped to deal with everyday pressures and to use the tools at their disposal to deal with them. Although the data regarding the influence of SOC on health is still lacking, it appears that those with low SOC are more vulnerable to life's challenges, leading to inferior lifestyle choices, decreased mental health and quality of life, higher illness incidence and even higher death risk [2].

It has been widely applied and accepted all over the world. The scale was developed based on three concepts comprehensibility, manageability and meaningfulness. Sense of coherence scale was developed based on interviews in detail with the person who has undergone traumatic events with measure consequences in life. He created features based on Gutmann's facet model that

represented strong and weak SOC depending upon those observations. Facet Theory (FT) is a meta theory used in the behavioral sciences to construct structural and also other theories. The foundational beliefs of FT are that social and behavioral ideas are complicated constructions that necessitate a systematic approach to describing observations and analyzing the concordance among observations and theory [3].

The degree to which individuals views internal and external impulses as rationally understandable are referred to as comprehensibility. Manageability denotes to one's perception of having resources at one's availability that can be used to satisfy the demands of the stimuli. The motivating dimension meaningfulness defined as the degree to which one believes that existence has emotional significance, that at most some of the difficulties encountered in life are worth committing to and dedicating oneself to and that they are viewed as opportunities instead of responsibilities. According to the World Health Organization (WHO), mental health is one of the most essential aspects of total health. The more these principles are grasped, the better a person's chances of successfully coping with the situation or sickness become. High SOC is correlated to a sense of well-being and predicts a favorable health outcome. To assess the sense of coherence, Antonovsky constructed the 29 item orientation to life scale, which included 11 items that measure comprehensibility, 10 items indicating manageability and 8 things measuring meaningfulness. Antonovsky further introduced a sense of coherence scale with 13 items i.e., shorter version in which five items assess comprehensibility, four assess manageability and four assess meaningfulness. In this scale the score ranges from 13 to 91 points. The assessment has been rendered into further 33 languages and evaluated in a variety of settings, including health care and public cohorts in a variety of nations. According to the hypothesis behind SOC, it develops through adulthood (until around thirty years of age), after which it stabilizes and only varies when life changes happen. Adults have minimal differences throughout time, according to several researches. However, many researches imply that SOC includes an element that is dependent on a person's cognitive conditions, which may alter over time. Antonovsky proposed that a significant SOC is necessary for crucial adaptability to a high pressure environment, ultimately results in improved health and well-being and a hypothesis that has been supported by several researches. Lot researchers suggest that a low SOC score indicates primarily psychiatric morbidity like as depression or anxiety, whereas others believe that a high SOC score signifies beyond just the lack of psychopathology. Although it has been proven that a higher SOC value can help to attenuate or balance the impact of stressful events on self-reported happiness and health, the number of studies demonstrating this effect is still limited.

The most pressing task currently is to apply the salutogenic approach to all policies at all levels of society,

i.e., to create healthy public policy in a salutogenic manner [4].

## LITERATURE REVIEW

The Sense of Coherence scale (SOC) is a scale which analyses way individuals view life, with the goal of determining how individuals behave and use existing assets to solve obstacles and manage as well as grow their health. Aaron Antonovsky coined the term Sense of Coherence (SOC) in 1979 to describe why certain individuals get sick during stress whereas others maintain health. It has been widely applied and accepted all over the world. The scale was developed based on three concepts comprehensibility, manageability and meaningfulness [5].

The more these principles are comprehended, the better a person's chances of coping with the condition or disease become. High SOC is linked to a sense of well-being and is related with a favorable health outcome.

The SOC 13 obtained a Cronbach's  $\alpha$  value=0.76 in a study. SOC-13 was determined as a dependable as well an effective metric among the sample population, with a 3 factor equation accounting 40.53% of the variance in SOC.

Aliakbar Mahammadzadeh, conducted research in the Iranian population using a group of 375 college students (137 males and 238 females) between the ages of 18 and 24 and the SOC-13's test of internal consistency discovered that all 13 elements are strongly connected to overall score. The inventory's Cronbach's  $\alpha$  was 0.77. Males had  $\alpha$  of 0.75, while females had an alpha of 0.78. Between test and re-test scores, there was a substantial association between hardiness 45 and the SOC 13 item scale. Between the subscales and the total score, there was a statistically significant association (Meaningfulness had  $r=0.76$ , comprehensibility was found to be 0.86 and manageability had  $r=0.81$ ). Factor analysis identified 4 factors with eigenvalues larger than one that explained 53.49 percent of the variance. The findings showed that the sense of coherence 13 item scale (Farsi version) is reliable and valid in the Iranian population [6].

## DISCUSSION

An analysis was carried to see if there was a correlation between High Related Quality of Life (HRQOL) and SOC amongst tobacco using health care professionals who worked in primary health centers. And it has been shown that men used tobacco more than females, with smoked tobacco being the most popular. Tobacco was ingested by nurses in the form of smoked tobacco. Among medical workers, there was a high level of tobacco use. According to the findings, there was a robust link between HRQOL and SOC among tobacco using health professionals working in primary health facilities [7,8]. Suraj, et al., earlier published the results of a study employing the SOC-29 item questionnaire and they obtained an internal consistency of 0.85 between Indian graduates studying in Chandigarh. Tyagi, et al., discovered a Cronbach's  $\alpha$  score

of 0.72 among Indian anaesthesiology post-graduate students.

Another study was undertaken by Marie Holmefur, et al., in which a group of 623 healthy people were examined using Rasch analysis. In conclusion, the SOC's overall measurement qualities reveal that it is a psychometrically sound scale [9,10]. Eriksson, carried out an observational research with a methodical combination of the present existing expertise on salutogenic research published between year 1992 and 2003 to consolidate results on the salutogenic concept, Sense of Coherence (SOC) and its association with Quality of Life (QoL).

A study was conducted to see if there was a link between the Sense of Coherence (SOC) and university students' fear of public speaking. The highest SOC is seen among university students over 30 years old, who have respiratory difficulties, do not indicate dread of public speaking and perceive themselves as more prepared for presentation skills. Given the significant involvement of emotional components in public discourse, it is necessary to consider the SOC as a key coping resource [11]. Efforts will be undertaken through research, education, service provision and the advocacy of healthy practices to enhance the quality of life of the population. Aim of this research is to measure the sense of coherence and health promoting behavior among students of medical and paramedic field.

### Objectives

- To calculate SOC of students in medical and paramedic field.
- To assess the stress management part of health promoting behaviors of these students.
- Comparison of the sense of coherence in students of different medical and paramedic field.
- Finding any association between sense of coherence and stress management as a health promoting behavior in these students.

This is a cross-sectional study, undergraduate students ageing from 18 to 24 years of age will be selected and study will be conducted by the department of public health dentistry, Sharad Pawar dental college, Sawangi Meghe Wardha. Male and female candidate were selected for the study from different colleges of medical and paramedic field that is medical, dentistry, physiotherapy, ayurveda and nursing [12]. The sense of coherence scale with 13 items *i.e.*, shorter version in which five items analyze comprehensibility, four evaluate manageability and four assess meaningfulness. In this scale the score ranges from 13 to 91.

### CONCLUSION

Only individuals who answered frequently or routinely or a similar choice or who scored 3 or 4 on each question, were deemed to be engaging in health promoting behavior in the HPLP item analysis. The people who answered never or sometimes and had a score of one or

two were judged to be not engaging in the behavior that promotes health. The initial three replies for SOC were given a lower score, whereas the last three were given a better score. The fourth respond was deemed ambiguous. The questionnaire will include 15 questions on stress management component of health promoting behavior.

### ETHICAL CONSIDERATION

The DMIMSU institute ethics committee will provide ethical approval. Permission to do the research will be acquired from the university's vice chancellor and the heads of the individual colleges. The research will be briefly discussed on the front pages of the questionnaires and the respondents will be given instructions on how to fill it out. It will also include information on the researcher, as well as assurances that identity and confidentiality would be preserved, as well as the fact that student involvement will be entirely voluntary and confidential. It is assured that the data will only be utilized for statistical analysis. Descriptive statistic will be used to check the SOC and health promoting behavior of the students of different medical and paramedic fields. Kruskal Wallis, test will be applied to compare the difference of SOC between different fields. To find out correlation between sense of coherence and health promoting behavior Pearson's correlation will be applied.

### CONFLICT OF INTEREST

None.

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Nil.

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