Health Consciousness and Attitude towards Preventive Healthcare in India – An Empirical Study

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Abstract

Health consciousness is about making health a priority, being aware of one's health and any changes thereabout and a willingness to take actions that help in maintaining health. Preventive healthcare includes a gamut of measures that are taken to prevent illnesses and diseases that ranges from diagnostic medical practices to managing one's lifestyle. The scales that are used to measure health consciousness and related concepts are developed and tested in the West and there is no such scale that fits the demographic and cultural context of India. The objectives of this study were to conceptualize a health consciousness scale that is relevant to the Indian context and to examine the influence of health consciousness on attitude towards preventive healthcare. This was a quantitative study that was carried out in India in June 2020. Sample size was 213. Items to be included in the scale were derived based on review of existing literature. Confirmatory factor analysis was used for data reduction. A series of principal component factor analyses using Varimax yielded 12 scale items that loaded onto 3 factors – health involvement, health responsibility and health awareness. Scale items were tested for validity and reliability - measures tested include Cronbach's alpha, composite reliability, discriminant validity and AVE. Structural equation modelling was used to test the effect of these 3 factors on attitude towards preventive healthcare. It was found that all the three factors have a direct and positive effect on attitude towards preventive healthcare. This study has great implications for hospital managers. Health consciousness can be an effective segmentation variable in identifying target group for marketing preventive healthcare in India.

Keywords: Health consciousness, Preventive healthcare, Health involvement, Health responsibility, Health awareness

INTRODUCTION

Health consciousness is about making health a priority, being aware of one's health and any changes thereabout and a willingness to take actions that help in maintaining health. It influences attitude and behaviour related to health. The needs and wants of healthcare consumers differ depending on how health conscious they are and therefore health consciousness can be used as a psychographic variable for market segmentation in the healthcare market. Health consciousness, despite its significance, is a largely unexplored construct in the Indian context. While health consciousness is a very familiar term there is no clarity on what it entails – what differentiates a person with high health consciousness from a person low on health consciousness. For this, there has to be a reliable scale to measure health consciousness. Though there are scales to measure health consciousness and related concepts these are developed and tested in the West. Such a scale is lacking in the Indian context. This paper attempts to develop a health consciousness scale suited for the demographic and cultural context of India.

In India, healthcare delivery is making a slow but steady paradigm shift from curative care to a wellness approach and it will be interesting to examine if health consciousness influences attitude towards preventive healthcare which is one such wellness oriented service offering. Preventive healthcare includes a gamut of measures that are taken to prevent illnesses and diseases that ranges from medical practices as annual health checkups, immunizations, medical screening like mammograms, pap smear, colonoscopy to managing one's lifestyle. Given the significance of prevention in the current context of COVID19 spread and the fact that preventive healthcare is an emerging health service in India, this paper also examines if health consciousness can be a predictor for attitude towards preventive healthcare in India.

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REVIEW OF LITERATURE AND RESEARCH GAP

Health consciousness refers to being aware of one's status of health and a willingness to adopt behavior that promotes health and wellness (Gould, 1988). According to Iverson and Kraft (2006) health consciousness is a person's predisposition to focus on his or her health. Michaelidou and Hassan (2008) define health consciousness as an individual's readiness to take health actions. Hong (2009) defines health consciousness as a person's orientation towards his or her overall health. There are several dimensions to this concept of health consciousness. Gould (1988) identified four factors –health self-consciousness, health alertness, health self-monitoring and health involvement. Many studies in 1990s conceptualized health consciousness as an integration of behaviors or attitudes related to health (Kraft and Goodell1993, Furnham and Forey 1994, Tai and Tam 1997, Jayanti and Burns 1998). Hong (2009) reconceptualized the health consciousness scale and identified three factors – self health awareness, personal responsibility and health motivation. Chihwei (2013) identified 8 factors related to health consciousness including physical and mental health orientation.

Health consciousness influences people's attitude and behavior on matters related to healthcare. Health consciousness influences numerous self reported, health related behaviors (Gould 1988, 1990). Health consciousness initiates and induces promptness to take health actions (Newsom et.al. 2005). Individuals whose health consciousness was high were found to be high on 'modern health worries' (Chen, Mei-Fang2013). Health consciousness was seen to play an intervening role between emotional intelligence and behaviors related to health (Espinosa and Kadic-Maglajlic, 2018). In a study on women's response to and coping with health related messages, it was seen that health consciousness had a positive correlation with adaptive coping (Iverson and Kraft, 2006). Health consciousness influences number of visits to family doctors / specialists (Mesanovic et al., 2013). It will be insightful to examine the influence of health consciousness on other health related behaviors.

Preventive healthcare, though a novel concept adopted by Indian hospitals, is a construct introduced as early as 1953 by Leavell and Clark who defined primary prevention as anticipatory interventions aimed at averting occurrence of diseases. Ali et. al. (2015) explains three levels of prevention in their paper - primary, secondary and tertiary levels: Primary level involves counselling on such aspects as lifestyle, diet and stress management for promotion of health. Secondary level includes use of conventional therapies for reducing risk of contracting diseases. Tertiary prevention includes pain management and disease management to reduce further risk. Health consciousness explains differences in consumer attitude towards preventative and holistic healthcare (Gould, 1988). Health consciousness is seen to be one of the factors (along with health motivation, perceived value of

preventive healthcare and 'self efficacy') that influences behavior related to preventive healthcare (Jayanthi and Burns, 1998). Explaining the need for segmentation for effective health interventions. Forthofer and Bryant (2000) stated that highly health conscious people provide greatest opportunity for preventive healthcare. Iverson and Kraft (2006) found that health consciousness is positively correlated to preventive health behaviour as consumption of fruits and vegetables and exercising. Health consciousness, among other personality tendencies, was found to influence individual's interest in doing genetic testing (Oliveri et. al., 2016), a preventive healthcare tool.

Gould developed a health consciousness scale in 1988 after which many studies were undertaken to develop and refine scales to measure health consciousness and related concepts. These studies mostly happened in the 90s (Gould, 1990, Kraft & Goodell, 1993; Furnham & Forey, 1994; Tai & Tam, 1997; Jayanti& Burns, 1998) or early part of 2000 (Dutta and Bergman, 2004a, 2004b, 2005, 2006; Dutta, 2007; Michaelidou & Hassan, 2008; Hong 2009,). Research by Chihwei (2013) is relatively recent, but even this needs updating in the current context of healthcare. Furthermore, research to develop a scale to measure health consciousness and related constructs (e.g. wellness, lifestyle) is largely confined to the West. Statistical validity and reliability of the health consciousness scales developed by western researchers is not as yet tested among demographic groups in India. India is a fast growing market for healthcare but there is still no reliable and valid scale to measure health consciousness specific to Indian context and it is this gap that this study is attempting to close. Also, the relationship between health consciousness and preventive healthcare is not yet examined in the Indian context. This research gap is also addressed in this study.

STATEMENT OF PROBLEM

This study attempts to examine if the health consciousness scale developed in the West is suited for the Indian context and if not, what parameters should be considered in developing a valid and reliable scale to assess health consciousness among Indian healthcare consumers. From earlier studies it is established that health consciousness influences many attitudes and behaviour related to healthcare. This paper attempts to examine if health consciousness can be a predictor for attitude towards preventive healthcare in India. Findings will help in developing a health consciousness scale suited for the Indian context. Further, it will add to the theoretical structure of the relationship between health consciousness and attitudes and behaviors related to healthcare.

RESEARCH OBJECTIVES

The objectives of this study can be stated as:

Research Objective 1) Develop and validate a Health Consciousness Scale relevant to India.

Research Objective 2) Examine if health consciousness can be a predictor for attitude towards preventive healthcare.

RESEARCH METHODOLOGY

This was a quantitative study using survey method. Data was collected using Google forms, the link of which was shared using social media.

Generation of Scale Items

When it comes to health consciousness, underlying psychology that produces specific behaviour is more important than the behavior itself. This was the thinking behind the health consciousness scale developed by Gould (1988, 1990) and his scale was meaningfully used to measure health consciousness in many subsequent studies. All 9 scale items of Gould's health consciousness scale were included in this study. Hong (2009) argued that the items used by Gould were redundant and hence, lacks face validity to capture the complexity of health consciousness. Based on this premise he reconceptualized the health consciousness scale, after examining similar scales used in many studies related to health consciousness and similar concepts like wellness and lifestyle. Hong's final scale had 11 items of health consciousness of which 4 items were from Gould's original study and 7 items were from other studies (Jayanthi& Burns, 1998; Michaelidou & Hassan, 2008; Kraft &Goodell, 1993; Tai & Tam, 1997; Dutta and Bergman, 2004)) - these 7 items were also included as scale items in the current study.The cultural context and demographic profile of the respondents of the current study is different from that of the previous studies, hence it was decided to include more items from the 99 items originally considered by Hong (before data reduction to 11 scale items). Additional items to include in the current study were decided based on brain storming sessions conducted with respondents with profile similar to the target respondents in the main study. Scale items used in earlier studies on health consciousness and related concepts were deliberated to examine if they need to be tested in the Indian context. Factors considered in deciding on adding an item: a) Items related to attitude / psychology (e.g. eating right and exercising will keep me healthy for life) and not related to behavior (e.g. I try to exercise 3 days each week for at least 30 minutes a day). Logic here is that behavior is just a manifestation of one's health related attitude. b) Items that are expected to be directly relevant in the Indian context (e.g. My health is not in my control). Issue specific items (e.g. alcohol consumption) were excluded. Also, items that do not have direct health reference but expected to have an effect on health (e.g. I worry that there are chemicals in my food) were excluded. A 7 point Likert scale was used as it is proved to be more reliable (De Coster, 2005) and more suited for electronically distributed surveys (Kraig, 2010). Respondents were asked to

indicate their agreement with each statement by giving scores between 1 to 7 where 1 stood for strongly disagree and 7 stood for strongly agree. Reverse coding was adopted wherever relevant.

Determination of Sample Size

There seems to be no consensus in literature regarding appropriate sample size for SEM. Wolf et. al. (2015), attempting to provide applied behavioral science researchers with an appropriate range of sample sizes for SEM stated that great variability exists in SEM sample size requirements. Reviewing existing literature on appropriate sample sizes for EFA, CFA and SEM, Theodoros (2018) states that though these are large sample size methods, there is limited and sometimes conflicting guidance on this issue. There are some rules of thumb though. Tabachnick & Fidell (2001) suggested a minimum sample size of 100 to 150 for SEM. The ratio of cases to free parameters, or N:q is a commonly used method for minimum recommendations - 10:1 to 20:1 is a commonly suggested ratio (Schumacker & Lomax, 2015; Kline, 2016; Jackson, 2003). In this study, 20 free parameters were considered, hence a sample size of 200 was targeted. This also fits the minimum sample size requirement of 200 for SEM as stated by Kline (2005).

Pilot Testing

Scale items were tested for construct face validity by discussing with experts who were provided with construct validity definitions. The questionnaire was then tested among 50 respondents to check for comprehensibility of scale items and also to see if respondents are being able to discriminate one statement from another. Based on respondent feedback and data analysis, 20 items related to health consciousness were included in the final scale (Appendix 1).Scale items were tested for reliability and yielded a Cronbach's Alpha of 0.901.

Data Collection

Questionnaire in Google forms was shared through social media. Use of social media helped in coverage of sample across age, gender and relevant income categories. 218 respondents participated in the study. After data cleaning we got 213 cases that could be used for further analysis. The data was then checked for normality – the data was normally distributed and was free of outliers. Missing values (very few in numbers) were replaced by mean of the responses to maintain consistency of sample size. Data was collected in May-June 2020.

FINDINGS

Confirmatory factor analysis was used for data reduction. A series of principal component factor analyses using Varimax reduced the number of scale items from 20 to 12 based on an Eigen value

cut off of 1. In each step items with cross loading and items with below 0.4 loading factor were deleted.

Table 1: KMO and Bartlett's Test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.913
Bartlett's Test of Sphericity	Approx. Chi-Square	3036.583
	df	66
	Sig.	.000

Source: Primary Survey (2020)

KMO value is 0.913 and value of significance is <0.05 - factor analysis can be used.

Table 2: Total Variance Explained

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.117	67.642	67.642	8.117	67.642	67.642	4.547	37.890	37.890
2	1.253	10.439	78.081	1.253	10.439	78.081	3.636	30.297	68.187
3	1.001	8.346	86.427	1.001	8.346	86.427	2.189	18.239	86.427
4	.364	3.031	89.458						
5	.272	2.269	91.727						
6	.218	1.814	93.541						
7	.214	1.783	95.325						
8	.192	1.598	96.923						
9	.137	1.146	98.069						
10	.124	1.030	99.099						
11	.065	.539	99.637						
12	.044	.363	100.000						

Extraction Method: Principal Component Analysis.

Source: Primary Survey (2020)

The three factors identified accounted for 86.427 % of the variance.

Table 3: Rotated Component Matrix

Rotated Component Matrix[a]

	Component		
	1	2	3
HCS1			.906
HCS2			.879
HCS3	.820		
HCS4	.807		
HCS5	.863		
HCS6	.857		
HCS7	.789		
HCS8	.694		
HCS9		.879	
HCS10		.841	
HCS11		.874	
HCS12		.802	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

Source: Primary Survey (2020)

HCS1 : I am alert to changes in my health; HCS2: I am usually aware of my health; HCS3: I am very self-conscious about my health; HCS4: I am generally attentive to my inner feelings about my health; HCS5: I am constantly examining my health; HCS6: I am very involved with my health; HCS7: I am concerned about my health all the time; HCS8: I am interested in any information related to my health; HCS9: I take responsibility for the state of my health; HCS10: Good health takes active participation on my part; HCS11: My health depends on how well I take care of myself; HCS12: Eating right and exercising will keep me healthy for life.

The above table shows 12 items loaded onto 3 factors – '**Health Awareness'** (HCS1 and HCS2), '**Health Involvement**' (HCS3 to 8) and '**Health Responsibility**' (HCS 9 to 12). Six of these items (HCS1 to 6) are from Gould's scale developed in 1988 and 4 (HCS 7,9,10,11) are from Hong's scale reconceptualised in 2009. HCS 8 is from Jayanthi and Burns (1998) and HCS12 is from Kraft and Goodell (1993).

Figure 1: CFA Model for Measurement Scale Items
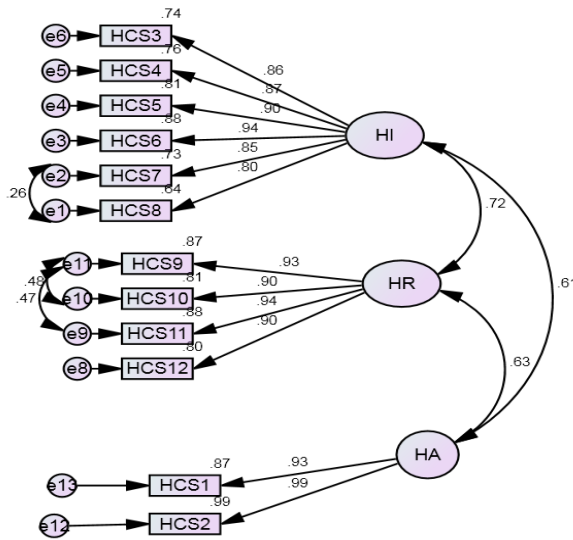
Source: Primary Survey (2020)

Fit indices: χ2 = 80.349, CMIN/df =1.674; p =0.015, RMSEA = 0.056, CFI = 0.989, NFI = 0.974 and AGFI = 0.910. These values indicate that the proposed scale fits for measurement.

Validity and Reliability Test

Validity measures tested include composite reliability, discriminant validity and AVE (average variance explained). Construct validity was measured using convergent validity and discriminant validity (as suggested by Campbell & Fiske, 1959).

Table 4: Scale Validity

	CR	AVE	MSV	ASV	HR	HI	HA
HR	0.912	0.693	0.524	0.460	0.833		
HI	0.929	0.666	0.524	0.451	0.724	0.816	
HA	0.841	0.666	0.396	0.387	0.629	0.615	0.816

Source: Primary Survey

Significance of correlation (* p < 0.050, ** p < 0.010, *** p < 0.001)

Note: CR > 0.7 (composite reliability is met), AVE > 0.5 (convergent validity is met), MSV< AVE (discriminant validity is met) Source: *Gaskin, J. & Lim, J. (2016), "Master Validity Tool", AMOS Plugin.*

The Composite Reliability measures internal consistency of scale items. CR values above the threshold level of 0.7 indicates that the scale items exhibit internal consistency. Convergent validity measures the extent to which constructs that should be related theoretically, are related. The AVE value of all the three factors were all above 0.5 indicating that convergent validity condition is met. Discriminant validity measures the degree to which constructs that should not be theoretically related, are not related. Condition to check discriminant validity is maximum shared variance (MSV) < AVE. Since all the values of MSV are less than AVE, discriminant validity condition is met.

Hypothesis Testing using Structural Equation Modelling (SEM)

Second research objective was to examine if health consciousness can be a predictor for attitude towards preventive healthcare. Factor analysis yielded 3 factors on Health Consciousness – Health Awareness, Health Involvement and Health Responsibility. To examine the relationship of these three factors to attitude towards preventive healthcare, the following three hypotheses are proposed:

Hypothesis 1: Health Involvement has a direct and positive influence on attitude towards preventive healthcare.

Hypothesis 2: Health Responsibility has a direct and positive influence on attitude towards preventive healthcare.

Hypothesis 3: Health Awareness has a direct and positive influence on attitude towards preventive healthcare.

To test these hypotheses structural equation modeling was done using maximum likelihood estimation method. The standardized coefficient (β) value of each path with p value was used as evidence for acceptance or rejection of framed hypotheses.

Table 5: Fit Statistics in the Structural Model

Sl. No.	Goodness-of-fit model Index	Recommended Value*	Observed Value	Results
1.	Chi-square/degree of freedom**	<=3.00	2.010	*Acceptable*
2.	Goodness of Fit Index (GFI)	>=0.80	0.908	*Fit*
3.	Adjusted Goodness of Fit Index(AGFI)	>=0.80	0.864	*Fit*
4.	Tucker-Lewis Index (TLI)	>=0.90	0.972	*Fit*
5.	Comparative Fit Index (CFI)	>=0.90	0.979	*Fit*
6.	Normalized Fit Index (NFI)	>=0.80	0.958	*Fit*
7.	Root Mean Square of Approximation (RMSEA)	<=0.08	0.069	*Acceptable*

Source: Primary Survey (2020)

$\chi 2$= 184.911, CMIN/df =2.010, p =0.000, RMSEA = 0.069, CFI = 0.979, NFI = 0.958 and AGFI = 0.864 – these values indicate that structure model is fit for prediction and interpretation.

Figure 2: Structure Equation Model for Hypothesis Testing
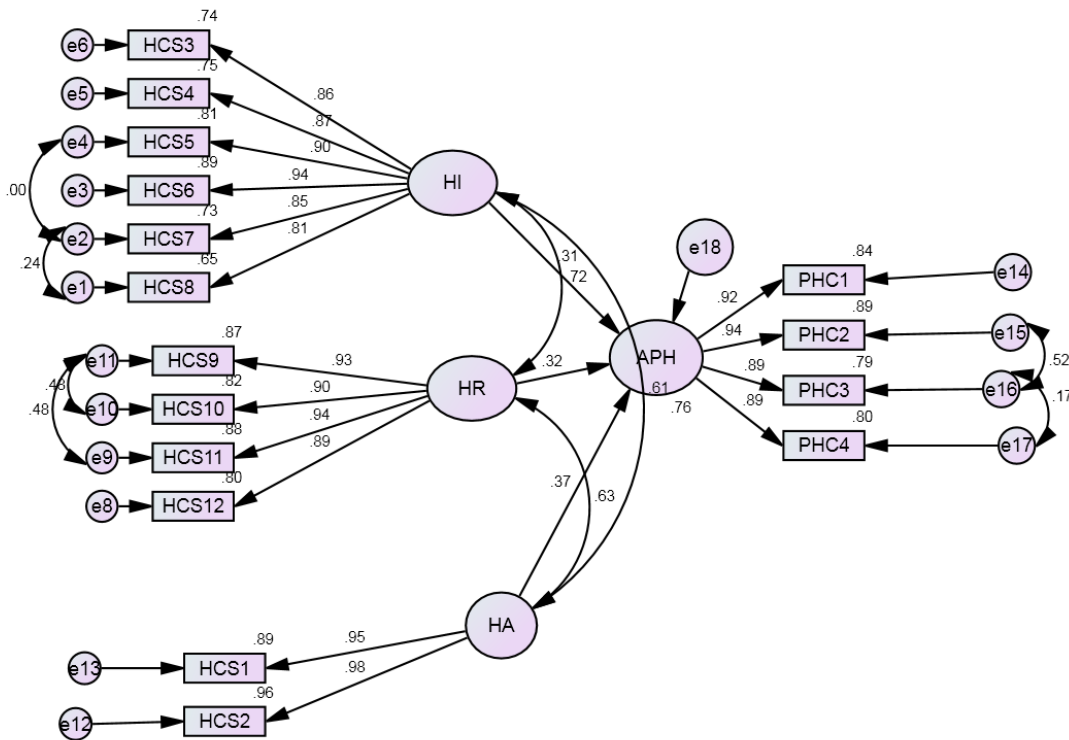
Source: Primary Data (2020)

PHC1: I am interested in preventive healthcare; PHC2: I believe routine health checkups are important to remain healthy and free of disease free; PHC3: I believe regular screening for diseases is important to remain healthy and free of diseases; PHC4: I believe prevention of diseases will be less expensive than curing it

All the items had loading greater than0.7, thereby indicating that the item is measuring the construct properly. All the three factors – health involvement, health responsibility and health awareness – together explains 76 percent of variance in attitude towards preventive healthcare.

Table 6: Path Coefficients and Determination Coefficients of the Structural Model

Hypothesis	Path	C.R.	P	Path coefficient (β)	Determination coefficient (R^2)	Result
H1	Health Involvement Attitude towards preventive healthcare	4.742	***	0.31	0.76	Accepted
H2	Health Responsibility Attitude towards preventive healthcare	4.841	***	0.32		Accepted

H3	Health Awareness → Attitude towards preventive healthcare	6.740	***	0.37		Accepted

Source: Primary Survey (2020)

Note: ***= $p<0.001$

All the three hypotheses are accepted i.e. Health Involvement has a direct and positive influence on attitude towards preventive healthcare. Health Responsibility has a direct and positive influence on attitude towards preventive healthcare. Health Awareness has a direct and positive influenceon attitude towards preventive healthcare. Therefore it can be concluded that health consciousness plays a significant role in attitude towards preventive healthcare. The findings of this study conducted in India is line with the findings from earlier research studies conducted to examine the influence of health consciousness on attitude and behavior related to preventive healthcare (Gould, 1988; Jayanthi and Burns, 1998; Forthofer and Bryant, 2000; Iverson and Kraft, 2006; Oliveri et. al., 2016).

DISCUSSION

The study attempted to develop a health consciousness scale that is relevant to India. Scale items were chosen based on review of previous studies on health consciousness. Confirmatory factor analysis yielded 12 items that loaded onto 3 factors. These are as listed below:

Factor 1: Health Involvement – Scale items: I am generally attentive to my inner feelings about my health; I am constantly examining my health; I am very involved with my health; I am concerned about my health all the time; I am interested in any information related to my health.

Factor 2: Health Responsibility – Scale Items: I am very self conscious about my health; I take responsibility for the state of my health; Good health takes active participation on my part; My health depends on how well I take care of myself; Eating right and exercising will keep me healthy for life

Factor 3: Health Awareness – Scale Items: I am alert to changes in my health; I am usually aware of my health.

Using structural equation modeling, the influence of the above 3 factors on attitude towards preventive healthcare was explored. It was found that all the 3 factors exerted a positive and direct influence on attitude towards preventive healthcare.

THEORETICAL AND EMPIRICAL CONTRIBUTION

Segmentation of healthcare market in India has traditionally been on the basis of demographic variables (income, gender and age) or geographic variables (urban - tier I, II, III, IV cities / rural). However, within the same demographic group individuals vary widely in terms of their attitude and

behavior in health related matters making it imperative to consider a more suited segmentation variable like health consciousness. The health consciousness scale re-conceptualized in this study is suited for Indian context and can be used to measure health consciousness of Indian healthcare consumers. Hospitals in India can explore preventive healthcare as a potential source of revenue generation. They need to develop effective strategies to market preventive healthcare to people who are high in health consciousness. People with high health consciousness are interested in seeking information related to their health. Generating awareness about preventive healthcare among such people is the first step in developing market for preventive healthcare. Awareness should be generated about various modes of preventive healthcare like routine health checkups, medical screening, immunizations, genome testing etc. People with high health consciousness are highly involved with their health. By developing strategies that would enhance customer involvement (for e.g. encouraging healthcare consumers to self monitor relevant healthcare parameters in order to seek timely medical attention), hospitals can enhance frequency of visits. At a macro level, by identifying people with high health consciousness and actively encouraging them to adopt preventive healthcare, hospitals can even help in reducing disease burden and healthcare costs.

LIMITATIONS AND FUTURE SCOPE

Data collection was by using Google forms. This would have excluded a section of population who are not net savvy. Another limitation is that the data collection happened during COVID19 pandemic and this may have coloured respondents' attitude towards preventive healthcare. All the scale items were generated from review of literature on studies conducted in the West and though care was taken to include all items that were deemed to be relevant to the Indian context, exhaustiveness of the scale cannot be guaranteed.

Health consciousness can be used as a psychographic segmentation variable, however further research is needed to identify clusters and profile the target groups. Research needs to be conducted to assess variations in health consciousness across demographic profiles and regions in India – this can help in devising public policies that are very relevant to specific groups of healthcare consumers. Also, studies can be conducted to examine the influence of health consciousness on attitudes (e.g. attitude towards immunizations / attitude towards alternative medicine) and behaviors (e.g. type of hospital patient visits for treatment, frequency of hospital visits) related to healthcare and wellness.

CONCLUSION

The scale developed in this study is more suited to measure health consciousness of Indians than the scales developed in the West. The scale was tested for reliability and validity and can be effectively used to measure health consciousness among healthcare consumers in India. It was also proved that health consciousness is a predictor of attitude towards preventive healthcare. The study is of practical significance as health consciousness can be used as a segmentation variable for healthcare market to target healthcare service offerings.

Annexure -1

Scale Items Tested

	Scale Item
1	I am alert to changes in my health (Gould, 1988)
2	I am usually aware of my health (Gould, 1988)
3	I reflect about my health a lot (Gould, 1988)
4	I am very self-conscious about my health (Gould, 1988)
5	I am generally attentive to my inner feelings about my health (Gould, 1988)
6	I am constantly examining my health (Gould, 1988)
7	I am very involved with my health (Gould, 1988)
8	I am aware of the state of my health as I go through the day (Gould, 1988)
9	I notice how I feel physically as I go through the day (Gould, 1988)
10	I am concerned about my health all the time (Hong, 2009-adopted from Jayanthi& Burns, 1998)
11	I take responsibility for the state of my health (Hong, 2009-adopted from Michaelidou& Hassan, 2008)
12	Good health takes active participation on my part (Hong 2009 - adopted from Kraft &Goodell, 1993)
13	I only worry about my health when I get sick. (R) (Hong 2009 - adopted from Kraft&Goodell, 1993)
14	Living life without disease and illness is very important to me (Hong 2009-adopted from Tai&Tam, 1997)
15	My health depends on how well I take care of myself (Hong 2009 -adopted from Dutta and Bergman, 2004)
16	Living life in the best possible health is very important to me (Hong 2009 - adopted from Dutta and Bergman, 2004)
17	Eating right and exercising will keep me healthy for life (Dutta&Bergman, 2004)
18	My health is outside my control. (R) (Kraft&Goodell, 1993)
19	I am interested in any information related to my health (Jayanthi&Burns)
20	I actively seek health related information from any possible source (New addition)

Annexure 2

Demographic Profile

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Female	114	53.5	53.5	53.5
Male	99	46.5	46.5	100.0
Total	213	100.0	100.0	

Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 12th std or below	2	.9	.9	.9
Graduate	74	34.7	34.7	35.7
PhD	4	1.9	1.9	37.6
Postgraduate	133	62.4	62.4	100.0
Total	213	100.0	100.0	

Age

	Frequency	Percent
Valid 21 to 30 years	38	17.8
31 to 40 years	47	22.1
41 to 50 years	65	30.5
51 to 60 years	46	21.6
More than 60 years	17	8.0
Total	213	100.0

Monthly Household Income

	Frequency	Percent
Valid Below Rs.30,000	12	5.6
Rs. 30,000 to Rs. 49,999	30	14.1
Rs. 50,000 to Rs. 1 lakh	65	35.5
Rs. 1 lakh to Rs. 1.49 lakhs	36	16.9
Rs. 1.5 lakhs to Rs. 1.99 lakhs	17	8.0
Rs.2 lakhs to Rs. 2.99 lakhs	14	6.6

Rs. 3 lakhs to Rs. 3.99 lakhs	7	3.3
Rs. 4 lakhs to Rs. 4.99 lakhs	5	2.3
Rs. 5 lakhs or more	27	12.7
Total	213	100.0

References

Ather Ali, ND, David L. Katz (2015), "Disease prevention and health promotion: how integrative medicine fits", American Journal of Preventive Medicine, 49(5suppl 3):S230–40.

Campbell, D. T. & Fiske D. W. (1959), "Convergent and discriminant validation by the multitrait-multimethod matrix", Psychological Bulletin, 56(2), pp. 81–105.

Chen, Mei-Fang (2013), "Influences of health consciousness on consumers' modern health worries and willingness to use functional foods", Journal of Applied Social Psychology, Vol. 43.

Chihwei Selene Hu (2013), "A new measure for health consciousness: Development of a health consciousness conceptual model, Conference Paper National Communication Association Annual Conference, November 2013.

De Coster, J. (2005), Scale construction notes, http://www.stat-help.com/notes.html. 16.06.2020

Dutta-Bergman, M. J. (2004a), "An alternative approach to social capital: Exploring the linkage between health consciousness and community participation", Health Communication, 16(4), pp.393-409.

Dutta-Bergman, M. J. (2004b), "Primary sources of health information: Comparisons in the domain of health attitudes, health cognitions, and health behaviors", Health Communication, 16(3), pp.273-288.

Dutta-Bergman, M. J. (2005), "Developing a profile of consumer intention to seek out additional information beyond a doctor: The role of communicative and motivation variables", Health Communication, 17(1), pp.1-16.

Dutta-Bergman, M. J. (2006), "A formative approach to strategic message targeting through soap operas: Using selective processing theories", Health Communication, 19(1), pp.11-18.

Dutta, M. J. (2007), "Health information processing from television: The role of health orientation", Health Communication, 21(1), pp 1-9.

Erika J. Wolf, Kelly M. Harrington, Shaunna L. Clark and Mark W. Miller (2013), "Sample size requirements for Structural Equation Models: An evaluation of power, bias, and solution propriety", Educ Psychol Meas, 2013 Dec, 76(6): 913–934

Espinosa Adriana, Kadić-Maglajlić Selma (2018), "The mediating role of health consciousness in the relation between emotional intelligence and health behaviors", Frontiers in Psychology, Vol. 9

Forthofer, M. S., & Bryant, C. A. (2000), "Using audience-segmentation techniques to tailor health behavior change strategies", American Journal of Health Behavior, 24(1), pp. 36-43.

Furnham, A., & Forey, J. (1994), "The attitudes behaviors and beliefs of patients of conventional vs. complementary (alternative) medicine", Journal of Clinical Psychology, 50(3), pp. 458-469.

Gaskin, J. & Lim, J. (2016), "Master validity tool", AMOS Plugin. Retrieved from Gaskination's StatWiki.

Gould, S J (1988), "Consumer attitudes toward health and healthcare: a differential perspective", The Journal of Consumer Affairs, pp. 22-1.

Gould, S. J. (1990), "Health consciousness and health behavior: The application of a new Health Consciousness Scale", American Journal of Preventive Medicine, 6(4), pp. 228–237.

Hong, H. (2009), "Scale development for measuring health consciousness: reconceptualization", 12th Annual International Public Relations Research Conference: Research That Matters to the Practice, FL: University of Miami.

Iversen, A. C., & Kraft, P. (2006), "Does socio-economic status and health consciousness influence how women respond to health related messages in media? ", Health Education Research, 21(5), pp. 601-610.

Jackson, D. L. (2003), "Revisiting sample size and number of parameter estimates: some support for the N:q hypothesis", Structural Equation Modeling, 10, 128-141.

Jayanti, R. K., & Burns, A. C. (1998), "The antecedents of preventive health care behavior: An empirical study", Academy of Marketing Science, 26(1), pp. 9-15.

Kline, R. B. (2005), Methodology in the Social Sciences principles and practice of Structural Equation Modelling, 2e., Guilford Press.

Kline, R. B. (2016), Principles and Practice of Structural Equation Modeling, 4e, Guilford Press.

Kraig Finstad (2010), "Response interpolation and scale sensitivity: evidence against 5-Point scales", Journal of Usability Studies, Vol.5 (3), pp. 104-110

Kraft, F. B., & Goodell, P. W. (1993), "Identifying the health conscious consumer", Journal of Health Care Marketing, Vol. 13(3), pp. 18-25.

Leavell, H. R., and Clark, E. G. (1953), Textbook of Preventive Medicine, McGraw-Hill, New York and London, pp. 11

Mesanovic, E., Kadic-Maglajlic, S., and Cicic, M. (2013), "Insights into health consciousness in Bosnia and Herzegovina", Proc. Soc. Behav. Sci., 81, pp. 570–575

Michaelidou, N. and Hassan, L.M. (2008), "The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic Food", International Journal of Consumer Studies, 32, pp. 163-170.

Newsom, J. T., McFarland, B. H., Kaplan, M. S., Huguet, N., & Zani, B. (2005), "The health consciousness myth: implications of the near independence of major health behaviours in the North American population", Social Science & Medicine, 60, pp. 433-437.

Oliveri S, Masiero M, Arnaboldi P, Cutica I, Fioretti C, Pravettoni G. (2016), "Health orientation, knowledge, and attitudes toward genetic testing and personalized genomic services: preliminary data from an Italian sample", Biomed Res Int., 6824581. doi:10.1155/2016/6824581

Schumacker, R. E., & Lomax, R. G. (2015), A beginner's guide to Structural Equation Modeling, 4e, New York, NY: Routledge.

Tabachnick, Barbara & Fidell, Linda.S. (2001), Using Multivariate Statistics, 4e, Pearson.

Tai, S. H. C., & Tam, J. L. M. (1997), "A lifestyle analysis of female consumers in Greater China", Psychology & Marketing, Vol. 14 (3), pp. 287-307.

Theodoros A. Kyriazos (2018), "Applied Psychometrics: sample size and sample power considerations in Factor Analysis (EFA, CFA) and SEM in general", Psychology, 09(08):2207-2230.