



Knowledge, behavior and Attitude of Middle-Aged People towards Health and Nutrition Information Available on Social Media

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ABSTRACT: -

This study aimed to find out the knowledge, behavior, and attitude among middle-aged people towards the health and nutrition information available on social media. The worldwide spread of digitalization has led to the harnessing of technology to improve health and nutrition outcomes. Paying attention to 'Middle-aged groups' social media is one way to encourage healthy aging. Although 60% of middle-age people are smartphone users, little is known about their use patterns of health and nutrition information available on social media. Setting and design: A cross-sectional descriptive study was conducted among 200 participants of middle-aged people (35-59 years) area of Badarpur (South Delhi). Method: Data on the knowledge, behavior, attitude among middle-aged group related to health and nutrition information on social media was collected using self-designed and self-administered questionnaire. Results: Among the 200 participants, (50%) were males and (50%) were females with a age group 35-59 years. Seventy-five percentage sought health and nutrition information through social media. Approximately (34.5%) of participants had used social media for exercise. The reliability of health information through social media was met for (41%) of participants, and (42%) claimed that the health and nutrition information was beneficial. Conclusion: Our findings suggest that the majority of the participants used social media platforms to find information related to their health and nutrition conditions. We need to conduct more such studies to find the usage & impact of health and nutrition information available on social media usage.

Keywords: Social Media, Health and Nutrition, Middle-age groups, Smartphone, knowledge, behaviour, attitude.

I. INTRODUCTION

The social media is a convenient source for obtaining educational material and information now-a-days. Social media mentions to internet-based stages that use an electronic means of communication to allow social interactions via the consumption, generation, sharing, and exchange of thoughts and content by users within their virtual communities. It contains social messaging apps (eg. whatsapp), social networking sites (SNSs, Google), and media-sharing apps (eg. instagram). [1,2] It also Consisting of information like articles, videos, advertisements blogs etc. pertaining to nutrition, food, beverages, recipes, diets, physical exercise, and other health and disease related issues [3]. Technological advances could be an opportunity to meet the social needs of middle-age people and to educate and empower them on health and nutrition related matters. Studies have shown that the Indians aged 16-64years tend to spend a usual of 2.36 hours on social media platform per day. 41% of the population aged 16-64years, between the developing countries use modern gadgets like Smartphone's, tablets, or computers to access these social networking sites [4,5]. Middle-aged people (35-59 years) are gradually turning to social media for health and nutrition-related information use in ranges such as physical activity, diet/nutrition and body image. The benefit of an online medical consultation is that there are no geographic boundaries. Another benefit is the cost the consultations provided online are lower in cost [6,8,11]. Thus, the use of social media between middle-aged people has been widely spread, which is changing the information-seeking behaviours associated to physical activity, nutrition/diet and value of life. This study aims to evaluate the influence of health and nutrition information through social media on knowledge, behaviour and attitude of middle-aged people.

The aims and objectives of this study were:

Aim : knowledge, behaviour and attitude of middle-aged people towards health and nutrition information available on social media

Objectives:

- To determine the knowledge, behaviour & attitude towards information available on social media on health and nutrition.
- To study the association between health and nutrition information usage on dietary behaviours.

II. METHOD

This “cross-sectional” study was conducted between January and February 2023 at Badarpur , South Delhi, India. A total of 200 participant’s belonging to middle-aged groups (35-59years) were 50% male and 50% female . The participant’s were selected using purposive sampling. Participant’s who did not meet the inclusion criteria were excluded from the study. Data was collected using distributed “self-administered questionnaire”. The questionnaire was made up in 5-section. The first section involved of social demographic of the participant’s like age, gender, marital status, level of education, occupations, medical history. The second section assessed the participant’s knowledge of health and nutrition information through social media. The third and fourth section questions were used to evaluated the participant’s behaviour and attitude ,in this section ,including purpose of using social media, influence by social media, frequency of social media usage, is beneficial or not, types of information mostly followed, rate of accuracy, social media represent as second opinion etc. And the final fifth section based on participant’s frequency of food intake in daily bases.

Statistical analysis

The data collected was finally done with using coded and entered in “ Microsoft excel” and tabulated forms. The described data was presented as frequencies and percentages

III. RESULT AND DISCUSSION

The social demographical information of the participants in this study is shown in **Table 1** In this table , we observe that among the 200 participants, 75(37.5%) were under 45-54 years of age, and respondents were (50%) male and (50%) female, more than half of the participants (79%) were married, also most of the participants (39.5%) had a bachelor 's degree, and occupation from the office job(35.5%). Most of the participants were medical history like hypertension (24%) and obesity (21%),among these participants use at least one type of social media and mostly access by mobile phone (46%). In addition, the participants the following different types of social media platforms WhatsApp (4.5%), YouTube (30%), Instagram (16%), Google+(14%), Facebook (28%) and other site (7%).

TABLE 1 – The social demographic characteristics of participants (N=200).

Variable	N (%)	Male(%)	Female(%)
Age category (years)			
35-44	73(36.5)	30(15)	43(21.5)
45-54	75(37.5)	28(14)	47(23.5)
55-59	52(26)	22(11)	30(15)
Gender			
Male	100(50)	100	100
Female	100(50)		
Marital status			
Single	7(3.5)	5(2.5)	2(1)
Married	182(91)	84(42)	98(49)
Widowed/Divorce	11(5.5)	5(2.5)	6(3)
Level of education			
Primary school	24(12)	8(4)	16(8)
Secondary school	69(34.5)	43(21.5)	26(13)
Bachelor’s degree	79(39.5)	45(22.5)	34(17)
Post graduation	28(14)	20(20)	8(4)
Occupation			
Housewife	38(19)	0	26(19)
Office job	71(35.5)	41(20.5)	30(15)
Doctor	30(15)	17(8.5)	13(6.5)
Retired	23(11.5)	20(10)	3(1.5)
Unemployed	38(19)	18(9)	20(10)
Medical history			
Diabetes	39(19.5)	17(8.5)	22(11)
Hypertension	48(24)	28(14)	20(10)
Heart disease	29(14.5)	15(7.5)	14(7)
Obesity	70(35)	25(12.5)	45(22.5)
Others please specify: (liver, kidney disease, respiratory disease etc.)	14(7)	8(4)	6(3)
Number of social media platforms used			
Never use	16(8)	12(6)	4(2)
Any of one	20(10)	8(4)	12(6)
Any of two	66(33)	16(8)	50(25)
All type	98(49)	36(18)	62(31)

How do you access social media			
Mobile phone(smart phone)	93(46.5)	52(26)	41(20.5)
Computer	48(24)	30(15)	18(9)
Tablet(PC)	28(14)	18(9)	10(5)
TV	20(10)	5(2.5)	15(7.5)
All the above	11(5.5)	6(3)	7(2.5)

The participant's knowledge of social media usage is presented in **Table 2**. In relation to the daily use of social media indicates that (36%) of the participants and time spend more than 1-2 h a day and monthly (30.5%) and most concerned about physical activity (29.5%) and health (26.5%). Among the 200 participants(68%)believe the information on social media impacted their health awareness.

TABLE-2 Participant's knowledge of health and nutrition information through social media.

Participant's knowledge	N (%)	Male(%)	Female(%)
Use of social media			
Always	72(36)	42(21)	30(15)
Often	67(33.5)	15(7.5)	52(26)
Sometimes	45(22.5)	23(11.5)	22(11)
Never	16(8)	10(5)	6(3)
Time spend on social media per day			
30min	19(9.5)	9(4.5)	10(5)
1-2hrs	69(34.5)	29(14.5)	40(20)
More than 3hrs	65(32.5)	25(12.5)	40(20)
Never	47(23.5)	37(18.5)	10(5)
Use social media for health and nutrition related information			
Always	33(16.5)	13(6.5)	20(10)
Often	58(29)	28(14)	30(15)
Sometimes	72(36)	32(16)	40(20)
Never	37(18.5)	17(8.5)	20(10)
Types of health and nutrition knowledge are you most concerned about	53(26.5)	33(16.5)	20(10)
Health	52(26)	22(11)	30(15)
Nutrition/Diet	59(29.5)	39(19.5)	20(10)
Physical activity	36(18)	19(9.5)	17(8.5)
Medical site/Physician			
Search for health related information on the internet			
Daily	37(18.5)	15(7.5)	22(11)
Weekly	60(30)	15(7.5)	45(21.5)
Monthly	61(30.5)	21(10.5)	40(20)
Don't know	42(21)	20(10)	22(11)
Has information on social media impacted your health and lifestyles	18(9)	8(4)	10(5)
Always	61(30.5)	18(9)	43(21.5)
Often	75(37.5)	25(12.5)	50(25)
Sometimes	46(23)	19(9.5)	27(13.5)
Never			
Research online about your health condition before visiting your physician			
Always	46(23)	16(8)	30(15)
Often	63(31.5)	13(6.5)	50(25)
Sometimes	60(30)	20(10)	40(20)
Never	31(15.5)	20(10)	11(5.5)

The participant's behavior regarding health and nutrition information through social media usage is presented in **Table 3 A** (40%) of the participants were using social media for personal use and frequency of social media usage less than 1years (38.5%) , types of information followed most diet/food (31%) and exercise (34.5%). Approximately 42% think the obtained health and nutrition information through social media is beneficial and the reason behind seeking health and nutrition information is insufficient time to see a physician 39% ,and 30.5% participants expressed their trust level in each source of using social media.

TABLE – 3 Participant's behavior of health and nutrition information through social media

Participant's behavior	N(%)	Male(%)	Female(%)
Why are you using social media			
Personal use	80(40)	45(22.5)	35(17.5)
Professional use	19(9.5)	9(4.5)	10(5)
Healthcare related issue	70(35)	35(17.5)	35(17.5)
All the above	31(15.5)	10(5)	21(10.5)
Influence of social media on specific health and nutrition information			
Always	56(28)	22(11)	34(17)
Often	58(29)	28(14)	30(15)
Sometimes	61(30.5)	31(15.5)	30(15)
Never	25(12.5)	12(6)	13(6.5)
Frequency of social media use for health purpose			
Less than 1 months	22(11)	10(5)	12(6)
Almost 6 months	77(38.5)	27(13.5)	50(25)
Less than 1 years	61(30.5)	41(20.5)	20(10)
More than 2-3 years	40(20)	12(6)	28(14)
Types of information follow mostly			
Diet/food	62(31)	22(11)	40(20)
Exercise	69(34.5)	30(15)	39(19.5)
Beauty	43(21.5)	10(5)	33(16.5)
All the above	26(13)	16(8)	10(5)
Is beneficial for you			
Always	26(13)	12(6)	14(7)
Often	56(28)	26(13)	30(15)
Sometimes	84(42)	50(25)	34(17)
Never	34(17)	30(15)	4(2)
Reason behind seeking health and nutrition information through social media			
Free of cost	78(39)	30(15)	48(24)
Insufficient time to see a physician	70(35)	30(15)	40(20)
Useful online consultation	37(18.5)	20(10)	17(8.5)
Fear from contamination	15(7.5)	7(3.5)	8(4)
Trust level in each source of health and nutrition information through social media			
Always			
Often	48(24)	17(8.5)	31(15.5)
Sometimes	60(30)	18(9)	42(21)
Never	61(30.5)	21(10.5)	40(20)
	31(15.5)	21(10.5)	10(5)

The attitude of participants regarding social media usage is shown in **Table 4**. Among 200 participant's (34.5%) expressed their interest in influence of social media and select a specific health bloggers, app, doctor (31.5%). Approximately (41%) think the obtained health and nutrition information through social media is reliable, while (29.5%) beliefs of enhanced awareness through social media. A (30.5%) of the participants are interested in applying the previous personal experience on health condition. (51%) participants were claimed that the social media health information represented as second medical opinion often and sometimes

TABLE – 4 Participant's attitude of health and nutrition information through social media

Participant's attitude	N(%)	Male(%)	Female(%)
Influence of social media health information on your health status.			
Always			
Often	37(18.5)	17(8.5)	27(13.5)
Sometimes	69(34.5)	27(13.5)	42(21)
Never	67(33.5)	34(17)	33(16.5)
Influence of social media to select a specific health bloggers ,app ,doctors/ nutritionist	27(13.5)	10(5)	17 (8.5)
Always	35(17.5)	12(6)	23(16.5)
Often	46(23)	18(9)	28(14)

Sometimes	63(31.5)	33(16.5)	30(15)
Never	56(28)	26(13)	30(15)
Reliability of health information			
Through social media			
Always	20(10)	5(2.5)	15(7.5)
Often	61(30.5)	32(16)	29(14.5)
Sometimes	81(40.5)	41(20.5)	40(20)
Never	38(19)	20(10)	18(9)
Beliefs of social media health information in enhancing awareness			
Always	52(26)	22(11)	30(15)
Often	59(29.5)	35(17.5)	24(12)
Sometimes	57(28.5)	27(13.5)	30(15)
Never	32(16)	16(8)	16(8)
Applying the previous person's experience on health condition			
Always	59(29.5)	24(12)	35(17.5)
Often	61(30.5)	35(17.5)	26(13)
Sometimes	48(24)	18(9)	30(15)
Never	32(16)	29(14.5)	3(1.5)
Rate the accuracy of health information available from the source			
Blogs	62(31)	32(16)	30(15)
Apps	53(26.5)	25(12.5)	28(14)
Healthcare providers contents	47(23.5)	26(13)	21(10.5)
All the above	38(19)	18(9)	20(10)
Social media health information represent as second medical opinion			
Always	59(29.5)	29(14.5)	30(15)
Often	51(25.5)	31(15.5)	20(10)
Sometimes	51(25.5)	16(8)	35(17.5)
Never	39(19.5)	23(11.5)	16(8)

The participant's of food frequency regarding social media usage is shown in **Table 5** Show that for(46%) of participant's eaten chocolates 1-4 time a week and fruits & vegetables were daily based(38%) . Among the 200 participant's(48%) take cooked vegetables several times a day and mostly participant's avoided junk and fast food for several time a week (43.5%). (59.5%) obtained that take cereals products in several times a day.

Table – 5 Participant's frequency of food intake in daily bases.

FOOD FREQUENCY	N%	Male(%)	Female(%)
How often you eat chocolate(sweet)			
Several time a day	12(6)	5(2.5)	7(3.5)
Daily	20(10)	8(4)	12(6)
Several time a week	64(32)	28(14)	36(18)
1-4 time a week	92(46)	37(18.5)	55(27.5)
never	12(6)	6(3)	6(3)
How often you eat fruits like apple, orange, strawberries ,banana, berries etc.			
Several time a day	40(20)	18(9)	22(11)
Daily	76(38)	46(23)	30(15)
Several time a week	30(15)	17(8.5)	13(6.5)
1-4 time a week	38(19)	19(9.5)	19(9.5)
never	16(8)	8(4)	8(4)
How often you take salad and raw vegetables			
Several time a day	39(19.5)	13(6.5)	26(13)
Daily	48(24)	34(17)	14(7)
Several time a week	29(14.5)	17(8.5)	12(6)
1-4 time a week	52(26)	31(15.5)	21(10.5)
never	32(16)	13(6.5)	19(9.5)
How often you eat cooked vegetables			
Several time a day	71(35.5)	42(21)	29(14.5)
Daily	96(48)	56(28)	40(20)
Several time a week	18(9)	7(3.5)	11(5.5)

1-4 time a week	10(5)	5(2.5)	5(2.5)
never	5(2.5)	2(1)	3(1.5)
How often you eat fat food and canned foods like fast foods and junk foods			
Several time a day	8(4)	4(2)	4(2)
Daily	21(10.5)	12(6)	9(4.5)
Several time a week	51(25.5)	32(16)	19(9.5)
1-4 time a week	87(43.5)	67(33.5)	20(10)
never	33(16.5)	17(8.5)	16(8)
How often you take meat, fish and sea foods			
Several time a day	5(2.5)	2(1)	3(1.5)
Daily	28(14)	16(8)	12(6)
Several time a week	35(17.5)	16(8)	19(9.5)
1-4 time a week	47(23.5)	23(11.5)	24(12)
never	85(42.5)	48(24)	37(18.5)
How often you take milk and milk products like curd ,yogurt, ice-cream etc.			
Several time a day	68(34)	37(18.5)	31(15.3)
Daily	82(41)	40(20)	42(21)
Several time a week	28(14)	16(8)	12(6)
1-4 time a week	12(6)	6(3)	6(3)
Never	10(5)	3(1.5)	7(3.5)
[How often you take cereals and others products like chapattis, rice ,oats			
Several time a day	62(31)	46(23)	16(8)
Daily	119(59.5)	58(29)	61(30.5)
Several time a week	16(8)	6(3)	10(5)
1-4 time a week	3(1.5)	2(1)	1(0.5)
never	0	0	0

Discussion

This study was done to investigate the knowledge, behaviors, attitude of middle-aged people towards health and nutrition information available on social media. The social media has an influence on the health status of the majority of the participants. Participants of this study believe that the health information available on social media has enhanced their awareness regarding their health conditions. Among the 200 participants, (50%) were males and (50%) were females with a age group 35-59 years. Seventy-two percentage sought health and nutrition information through social media. Approximately (34.5%) of participants had used social media for exercise. The reliability of health information through social media was met for (41%) of participants, and (42%) claimed that the health and nutrition information was beneficial. On the other hand, (30%) of participants have applying on a previous person's experience of their health condition. Accordingly social media can be used to improve or enhance self care and knowledge, it can also create potential risk to people.

Social media and health & nutrition information usage

This study aimed to assess the knowledge, behavior and attitude towards the health and nutrition information through social media and use of different platforms and search engine to seek health information in badarpur New Delhi. Most of the our participants refer social media (72%) for health and nutrition information. This finding is similar to another research, which found (59%) of their respondents seek medical related information through social media [11]. These figures reflect the widespread use of social media platforms due to their ease of accessibility and availability and their potential use in future social media based public health promotion. Based on the result of the study, participant's seem to be highly influenced by the healthcare information provided to them on social media platforms and find them reliable. Impact of social media could have a positive influence in many middle-aged groups lives however a proper knowledge in this area is much needed. Along with some important result, our study was some also having some limitations. First, the sample was restricted to one community in one area of Badarpur, New Delhi, which might limit the generalized the results. Second, the data were only collected from middle-aged group using self-reported questionnaire. Despite this limitation, the result of our study majority of the participant's admitting that impact of health and nutrition information through social media is they are using for positive benefits of the health and enhance better quality of life.

IV. CONCLUSION AND FUTURE SCOPE

It can be conducted from the study that social media usage is widespread among middle -aged group . Health and nutrition information that is seeking from the social media platforms has a great impact on the knowledge, behavior and attitude of middle -aged group. The majority of the participant's of

the study were used social media platforms to seek health and nutrition information. We need more studies in India related to social media usage and its impact on middle-aged group. Therefore, more health and nutrition benefits that should be achieved with social media, such as cognitive engagement, improvements health and nutrition and communication, and increase in social connectedness.

ACKNOWLEDGMENTS

This study has received no funding. This was conducted as part of the Master Nutrition and Dietetics curriculum. The data collection and compilation of work was solely done by the student.

Declarations: -

Study material and data : Authors confirmed that all the relevant data and study material is enclosed safely in an institutional data repository and could be made available upon requirement.

Conflicts of interest:- There is no conflicts of interest to report.

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