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RELIABILITY OF HEALTH QUESTIONNAIRE FOR FEMALES INVOLVED IN INDIVIDUAL SPORTS

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ABSTRACT

Sports have a great influence on a person's daily life including health and well-being. By giving oneself up to regular physical activities, one can improve heart function, reduces the risks of diabetes, controls blood sugar and lowers tension and stress level. The objective of the present study was to determine the reliability (test-retest) of the Health Questionnaire (HQ) for college going females involved in individual sports/games. A questionnaire was developed, consisting of 42 items which were sent out to the experts for suggestion who rated each question on a ten-point scale to ascertain the face validity of the HQ. A trial run was performed, and the questionnaire was modified accordingly. The questionnaire was modified keeping in view the input provided by the experts. A group (n=35) of college going females between the age ranging from 17 to 20 years involved in individual sports/games were randomly selected. Thereafter the developed HQ was administered on the selected sample twice at the interval of two days. The statistical analysis used was mean, standard deviation and the Pearson product-moment correlation 'r' between the trials. The range of 'r' for the administration questionnaire was .40 to .76 which is considered an "acceptable" measure of reliability. In conclusion each item/variable of the selected items/variables of Health Questionnaire had acceptable reliability in regard to females involved in individual sports.

Keywords: Health Questionnaire, Female Sportsperson, Individual Sport, Test-Retest Reliability, Face Validity

1. INTRODUCTION

Health is defined as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity World Health Organization. (2022), Kumar et al. (2015), Malm et al. (2019) Physical activity is based on physical, physiological, and psychological components of human body Malm et al. (2019)

Regular participation in physical activity promotes better growth and development including multiple benefits for physical, mental, and psychosocial health that with no doubt contribute to the process of learning Kumar et al. (2015), Kohl et al. (2013) Physical activity reduces the risk for many disorders and diseases, for instance, heart disease, diabetes mellitus, osteoporosis, high blood pressure, obesity, and metabolic syndrome; improves various other aspects of health and fitness, including aerobic capacity, muscle and bone strength, flexibility, body mass and composition, insulin sensitivity, lipid profiles, immune function and it also improves cognition and memory Malm et al. (2019), Maugeri et al. (2020), Batista et al. (2019) It also reduces stress, anxiety, and depression among people Malm et al. (2019), Kohl et al. (2013)

Numerous scientific literatures revealed that conditioning, physical training, and sports participation lead to structural and functional changes in the body of athletes. The rate of change is influenced by the extent of involvement in sports training. Sports training or participation leads to proper growth, health, and intelligence Brown et al. (2017)

There are numerous types of games and sports played. These games and sports are categorized as team games, individual games, and recreational games. Indians are well-known in different sports. It is stated that Indian females are far much better than males in individual games and sports for instance; the first proud instant for Indian sportswomen came at the Sydney Olympics 2000 when Karnam Malleswari won bronze, making her the very first Indian weightlifter to win a medal at Olympics Olympic Channel Writer (2021), Kesarimal (2017) More importantly and proudly she became the first Indian woman to win an Olympic medal for India Olympic Channel Writer (2021) New records caught the eyes when Saina Nehwal won bronze at London 2012, which was also India's first medal at the Olympic Games in badminton Olympic Channel Writer (2021) The first Indian woman boxer to win a medal at the Olympics was MC Mary Kom, who has been a role model for Indian sports women in many different ways Olympic Channel Writer (2021), Kesarimal (2017), Phor (2012) And few Indian sports women have stood on the Olympic podium with a silver medal. The first Indian woman was PV Sindhu in badminton Olympic Channel Writer (2021) Her accomplishments at Rio 2016 Summer Olympics added feathers to the glory of India while her historic win at the BWF World Championships established India as an utmost challenger at the top. Whereas her recent win at Tokyo Olympics 2020 with a bronze medal proved that she is the golden women of India Olympic Channel Writer (2021), Indian women at the Olympics (2022) In 2016 Rio de Janeiro Olympics Sakshi Malik became the first Indian woman to win an Olympic medal in wrestling by winning bronze in the 58kg category to create history Olympic Channel Writer (2021) Sania Mirza's inspiring title win at her first event on return from a maternity break, the Hobart International was another historic achievement as she led the Indian tennis team to the Fed Cup playoffs for the first time Kesarimal (2017) Another rising stars at 2020 Tokyo Olympics were Saikhom Mirabai Chanu who won the first ever silver medal in women weightlifting event and Lovlina Borgohain won bronze for the country in boxing Indian women at the Olympics (2022) As the number of female participants and medal winners are growing every year, a study on women participation in individual sports and games is of great significance.

An individual sport is a type of sport in which participants compete as individuals where they not only compete with others but also attempts to improve their previous personal best Individual Sport (2022), Hamilton and Chapel (2022) It include games and sports like badminton, bowling, boxing, cycling, figure skating,

golf, skiing, snowboarding, surfing, swimming, track and field, wrestling, where sportsperson participate individually Forrest et al. (2016)

A questionnaire is a research instrument that consist a series of printed or mimeographed questions for the purpose of gathering information regarding respondent's attitudes, behaviour, belief, and knowledge Roopa and Rani (2012), Boynton and Greenhalgh (2004) Similarly, a health survey question is a questionnaire to gather information from respondent/s on the state of their health, quality of life and well-being. Such questions validate a researcher to understand the overall health, factors of illness, opinion on healthcare services provided and health risk factors associated with the individual's health QuestionPro (2022)

A Health Questionnaire (HQ) for females involved in individual sports and games is of great importance. In the process of development of HQ, testing the reliability is an important scientific consideration. Hence the present study aims to test reliability of the HQ for females involved in individual sports and games.

2. METHODS

A total number of 35 college going females involved in individual sport/game between the age ranged from 17 to 20 years participated in the present study. A standardized Health Questionnaire (HQ) was administered to the participants to evaluate the test-retest reliability. The HQ consisted of seven components namely sleep and rest, diet and nutrition, work and study, health and hygiene, infections, diseases, and different biological cycles related to females, sports, and recreation as well as cultural and social. And later 42 variables from these seven components were drafted and sent to the experts of the field of health and physical education. The original questionnaire was then modified, keeping in mind the suggestions provided by the experts. This was done so as to ascertain the face validity of the questionnaire who graded each item on the HQ on a ten-point scale. The three variables specifically, HQ40, HQ41 and HQ42 pertained to certain diseases, infections and sickness respectively and therefore did not demand inter-test comparisons but intergroup comparisons and inferences. Hence, they were not subjected to inter-test reliability. The HQ prompts the respondents, through a series of questions on the health status, which they had to answer on a nine-point scale. The HQ was administered twice to the same participants at an interval of two days. The results of the questionnaire were compared using the Pearson's coefficient of correlation. In addition, a student's t-test was also employed to support the correlation.

3. RESULTS AND DISCUSSIONS

To economize the space, variables have been coded as HQ1, HQ2, HQ3, HQ4, HQ5, HQ6, HQ7, HQ8, HQ9, HQ10, HQ11, HQ12, HQ13, HQ14, HQ15, HQ16, HQ17, HQ18, HQ19, HQ20, HQ21, HQ22, HQ23, HQ24, HQ25, HQ26, HQ27, HQ28, HQ29, HQ30, HQ31, HQ32, HQ33, HQ34, HQ35, HQ36, HQ37, HQ38, HQ39, HQ40, HQ41 and HQ42. The corresponding variables and their codes have been summarized in Table 1

Table 1

Table 1 Health Variables and Their Coding

S.No.	Variables	Variables Code
1	Satisfaction with sleep and rest	HQ1

2	Sound sleep	HQ2
3	Disturbance in sleep with vague fear/anxiety/and/or bad dreams	HQ3
4	Intake of sufficient nutrition diet	HQ4
5	Concerned about diet	HQ5
6	Weight/diet control	HQ6
7	Regular/moderate hard physical work	HQ7
8	Regular moderate exercise	HQ8
9	Improvement upon study	HQ9
10	Improvement in health	HQ10
11	Personal hygiene	HQ11
12	Cutting and cleaning nails regularly	HQ12
13	Caring for proper ventilation, study light, correct postures, regular medical check-up etc.	HQ13
14	Regular bowel movements (Internal cleanliness)	HQ14
15	Indulging in smoking	HQ15
16	Indulging in alcoholism	HQ16
17	Concentration on work	HQ17
18	Consuming eatables exposed to dust and flies (Food eating habits)	HQ18
19	Avoiding mental stress and trying to remain cheerful	HQ19
20	Mixing up with people and sharing feelings (Socialization)	HQ20
21	Prone to infections/diseases	HQ21
22	Regular biological cycles (Menstrual cycles)	HQ22
23	Enjoying sports and recreation	HQ23
24	Participation in recreational activities and sports	HQ24
25	Considering sports as a good past time	HQ25
26	Outings with college mates and friends	HQ26
27	Nonparticipation in religious functions	HQ27
28	Participation in social functions	HQ28
29	Participation in cultural programs	HQ29
30	Worshipping in temple, gurudwara, mosque, church etc.	HQ30
31	Treatment from quack	HQ31
32	Treatment from family doctor	HQ32
33	No treatment during sickness	HQ33
34	No. of hours of sleep	HQ34
35	No. of hours of rest in daytime	HQ35
36	No. of meals per day	HQ36
37	No. of fasts/skipping meals per week	HQ37
38	No. of hours devoted for study	HQ38
39	No. of hours of moderate work	HQ39
40	If suffered any of the following diseases recently (a)Diphtheria, (b) Cholera (c) Typhoid (d) Malaria (e) Jaundice (f) Any other	HQ40
41	If prone to following infections/diseases:	HQ41
	(a)Frequent cough and cold (b) Frequent fever (c) Diarrhea/ Constipation	
42	If suffered from any of the following menstrual problems/sickness: (a) Pain or cramps during menses (b) Profuse bleeding during menses (c) Menses lasting more than seven days (d) Irregular menses (e) Intermenstrual bleeding i.e., bleeding between the menstrual periods (f) White discharge (leucorrhea) in exercise (g) Blood-stained Leucorrhea	HQ42

(h) Backache during menses
(i) Any other problems
(j) No problem

Table 2

Table 2 Statistics of Trial One and Trial Two of HQ Variables for Test-Retest Reliability for Individual Sports Group

S.No.	Variables	Trial One			Trial Two			Test-Retest Coefficient
		Mean	±	SD	Mean	±	SD	'r'
1	HQ1	6.23	±	1.61	6.31	±	1.80	.40
2	HQ2	5.89	±	2.42	5.31	±	2.41	.47
3	HQ3	3.29	±	1.71	6.57	±	1.42	.48
4	HQ4	6.57	±	1.42	7.14	±	1.33	.41
5	HQ5	6.54	±	1.52	6.77	±	1.75	.49
6	HQ6	4.31	±	2.58	4.69	±	2.30	.57
7	HQ7	7.31	±	1.08	6.60	±	1.87	.44
8	HQ8	6.77	±	1.40	6.63	±	1.44	.42
9	HQ9	5.37	±	1.80	5.83	±	1.32	.40
10	HQ10	5.77	±	2.02	6.43	±	1.96	.46
11	HQ11	7.91	±	1.20	7.54	±	1.72	.41
12	HQ12	7.66	±	1.37	7.77	±	1.40	.68
13	HQ13	6.57	±	1.33	6.74	±	2.09	.40
14	HQ14	7.14	±	1.59	6.37	±	2.33	.45
15	HQ15	1.14	±	0.43	1.31	±	0.72	.45
16	HQ16	1.09	±	0.51	1.29	±	0.67	.45
17	HQ17	6.51	±	1.62	6.66	±	1.94	.44
18	HQ18	1.97	±	1.79	2.17	±	1.52	.41
19	HQ19	6.37	±	1.70	6.54	±	2.00	.40
20	HQ20	6.97	±	1.64	7.23	±	1.46	.40
21	HQ21	2.83	±	2.08	3.00	±	2.03	.43
22	HQ22	6.54	±	2.27	6.69	±	2.05	.57
23	HQ23	7.60	±	1.26	6.97	±	1.72	.45
24	HQ24	6.89	±	1.66	6.74	±	1.88	.45
25	HQ25	7.17	±	1.81	7.03	±	1.74	.40
26	HQ26	5.83	±	2.26	6.26	±	1.63	.46
27	HQ27	3.63	±	2.45	3.66	±	2.21	.48
28	HQ28	6.14	±	1.93	6.51	±	2.32	.65
29	HQ29	5.00	±	1.97	5.60	±	2.30	.54
30	HQ30	6.00	±	2.20	6.49	±	2.34	.47
31	HQ31	1.66	±	1.08	2.20	±	1.47	.49
32	HQ32	6.40	±	2.19	6.57	±	1.54	.41
33	HQ33	2.57	±	2.05	2.40	±	1.31	.44

34	HQ34	7.13	±	0.95	7.29	±	1.07	.56
35	HQ35	1.63	±	0.97	1.45	±	0.87	.72
36	HQ36	3.77	±	0.80	3.74	±	0.61	.63
37	HQ37	1.63	±	2.03	1.30	±	1.54	.66
38	HQ38	1.83	±	1.22	1.97	±	1.03	.52
39	HQ39	2.74	±	1.24	2.79	±	1.13	.76
								Mean Coefficient = 0.49026

Note: Rounded to two digits after the decimal except for Mean Coefficient

The data in Table 2 shows that the test-retest reliability co-efficient of health questionnaires administered to the females belonging to individual games/sports ranges from .40 to .76, which is considered an 'acceptable' measure of reliability. The descriptive statistics implies compatibility of each item on the health questionnaire for females participating in individual sports. The test-retest reliability of the variables namely HQ1, HQ2, HQ3, HQ4, HQ5, HQ6, HQ7, HQ8, HQ9, HQ10, HQ11, HQ12, HQ13, HQ14, HQ15, HQ16, HQ17, HQ18, HQ19, HQ20, HQ21, HQ22, HQ23, HQ24, HQ25, HQ26, HQ27, HQ28, HQ29, HQ30, HQ31, HQ32, HQ33, HQ34, HQ36, HQ37 and HQ38 were found to be acceptable. Whereas, the variable namely HQ35 and HQ39 were found to have high validity.

Table 3

Table 3 Inferential Statistics of Trial One and Trial Two of the HQ Administered to Females of Individual Sports

S.No.	Variables	Trial One			Trial Two			T-Ratio
		M	±	SD	M	±	SD	
1	HQ1	6.23	±	1.61	6.31	±	1.80	-0.196(N.S)
2	HQ2	5.89	±	2.42	5.31	±	2.41	1.005(N. S)
3	HQ3	3.29	±	1.71	6.57	±	1.42	-8.73*
4	HQ4	6.57	±	1.42	7.14	±	1.33	-1.733(N.S)
5	HQ5	6.54	±	1.52	6.77	±	1.75	-0.587(N.S)
6	HQ6	4.31	±	2.58	4.69	±	2.30	-0.65(N.S)
7	HQ7	7.31	±	1.08	6.60	±	1.87	1.945(N. S)
8	HQ8	6.77	±	1.40	6.63	±	1.44	0.412(N. S)
9	HQ9	5.37	±	1.80	5.83	±	1.32	-1.219(N.S)
10	HQ10	5.77	±	2.02	6.43	±	1.96	-1.387(N.S)
11	HQ11	7.91	±	1.20	7.54	±	1.72	1.044(N. S)
12	HQ12	7.66	±	1.37	7.77	±	1.40	-0.332(N.S)
13	HQ13	6.57	±	1.33	6.74	±	2.09	-0.406(N.S)
14	HQ14	7.14	±	1.59	6.37	±	2.33	1.615(N. S)
15	HQ15	1.14	±	0.43	1.31	±	0.72	-1.199(N.S)
16	HQ16	1.09	±	0.51	1.29	±	0.67	-1.405(N.S)
17	HQ17	6.51	±	1.62	6.66	±	1.94	-0.351(N.S)
18	HQ18	1.97	±	1.79	2.17	±	1.52	-0.504(N.S)
19	HQ19	6.37	±	1.7	6.54	±	2.00	-0.383(N.S)
20	HQ20	6.97	±	1.64	7.23	±	1.46	-0.701(N.S)
21	HQ21	2.83	±	2.08	3.00	±	2.03	-0.346(N.S)
22	HQ22	6.54	±	2.27	6.69	±	2.05	-0.29(N.S)
23	HQ23	7.60	±	1.26	6.97	±	1.72	1.748(N. S)
24	HQ24	6.89	±	1.66	6.74	±	1.88	0.354(N. S)

25	HQ25	7.17	±	1.81	7.03	±	1.74	0.33(N. S)
26	HQ26	5.83	±	2.26	6.26	±	1.63	-0.913(N.S)
27	HQ27	3.63	±	2.45	3.66	±	2.21	-0.054(N.S)
28	HQ28	6.14	±	1.93	6.51	±	2.32	-0.725(N.S)
29	HQ29	5.00	±	1.97	5.60	±	2.30	-1.172(N.S)
30	HQ30	6.00	±	2.20	6.49	±	2.34	-0.903(N.S)
31	HQ31	1.66	±	1.08	2.20	±	1.47	-1.751(N.S)
32	HQ32	6.40	±	2.19	6.57	±	1.54	-0.376(N.S)
33	HQ33	2.57	±	2.05	2.40	±	1.31	0.413(N. S)
34	HQ34	7.13	±	0.95	7.29	±	1.07	-0.662(N.S)
35	HQ35	1.63	±	0.97	1.45	±	0.87	0.817(N. S)
36	HQ36	3.77	±	0.80	3.74	±	0.61	0.176(N. S)
37	HQ37	1.63	±	2.03	1.30	±	1.54	0.766(N. S)
38	HQ38	1.83	±	1.22	1.97	±	1.03	-0.519(N.S)
39	HQ39	2.74	±	1.24	2.79	±	1.13	-0.176(N.S)

Note: *Significant at 0.05 level of significance; N.S = Not Significant.

Rounded to two digits after the decimal except for T ratio

The data in Table 3 shows the result of T-Test applied at 0.05 level of significance between trial one and trial two for females involved in individual sports/games. The variables in the Health Questionnaire namely HQ1, HQ2, HQ4, HQ5, HQ6, HQ7, HQ8, HQ9, HQ10, HQ11, HQ12, HQ13, HQ14, HQ15, HQ16, HQ17, HQ18, HQ19, HQ20, HQ21, HQ22, HQ23, HQ24, HQ25, HQ26, HQ27, HQ28, HQ29, HQ30, HQ31, HQ32, HQ33, HQ34, HQ35, HQ36, HQ37, HQ38, HQ39, HQ40, HQ41 and HQ42 were found to be insignificant ($p<0.05$; $t>1.99$).

The variable namely HQ3 was found to be significant ($p<0.05$; $t>1.99$).

4. CONCLUSIONS

1) The test-retest reliability coefficient of the Health Questionnaire administered to females involved in individual sports ranged from 0.40 to 0.76.
2) The descriptive statistics of the data documented compatibility of each Health Question. The mean test-retest reliability of all the selected questions of the Health Questionnaire reported a value of 0.49 which is rated as 'acceptable' correlation of coefficient.
3) Out of 39 variables, 37 variables were found to be acceptable. Whereas two variables namely, HQ35 and HQ39 were found to have high reliability.
4) According to t-test between trial one and trial two, out of 39 selected variables 38 variables were found to be insignificant and only one variable that is HQ3 was found to be significant. Hence, corroborated the findings related to reliability coefficient.

CONFLICT OF INTERESTS

None.

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REFERENCES

Batista, M. B., Romanzini, C. L. P., Barbosa, C. C. L., Shigaki, G. B., Romanzini, M., & Ronque, E. R. V. (2019). Participation in sports in childhood and adolescence and physical activity in adulthood : A systematic review. Journal of Sports Sciences, 37(19). https://doi.org/10.1080/02640414.2019.1627696

Boynton, P. M. & Greenhalgh, T. (2004). Selecting, designing, and developing your questionnaire. BMJ, 328(7451), 1312-1315. https://doi.org/10.1136/bmj.328.7451.1312

Brown, K. A., Patel, D. R., Darmawan, D. (2017). Participation in sports in relation to adolescent growth and development. Translational Pediatrics, 6(3), 150-159. https://doi.org/10.21037/tp.2017.04.03

Forrest, D., McHale, I. G., Sanz, I., Tena, J. D. (2016). An analysis of country medal shares in individual sports at the Olympics. European Sport Management Quarterly, 17(2), 117-131. https://doi.org/10.1080/16184742.2016.1248463

Hamilton, J. & Chapel, L. (2022). Individual Sports : Definition, Examples & Skill Development.

Indian women at the Olympics. (2022). In Wikipedia.

Individual Sport. (2022). In Wikipedia.

Kohl, H. W. et al. (2013). Committee on Physical Activity and Physical Education in the School Environment, Food and Nutrition Board, Institute of Medicine; Kohl HW III, Cook HD, editors. Educating the Student Body : Taking Physical Activity and Physical Education to School. Washington (DC) : National Academies Press (US), Physical Activity and Physical Education : Relationship to Growth, Development, and Health.

Kesarimal, S. (2017). Indian Women Contribution in Sports. International Journal of Research in Social Sciences and Information Studies, 5, 89-91.

Kumar, B., Robinson, R., & Till, S. (2015). Physical activity and health in adolescence. Clinical Medicine, 15(3), 267-272. https://doi.org/10.7861/clinmedicine.15-3-267

Malm, C., Jakobsson, J., & Isaksson, A. (2019). Physical Activity and Sports-Real Health Benefits : A Review with Insight into the Public Health of Sweden. Sports, 7(5), 127. https://doi.org/10.3390/sports7050127

Maugeri, G., Castrogiovanni, P., Battaglia, G., Pippi, R., D'Agata, V., Palma, A., Rosa, M. D., & Musumeci, G. (2020). The impact of physical activity on psychological health during Covid-19 pandemic in Italy. Heliyon, 6(6). https://doi.org/10.1016/j.heliyon.2020.e04315

Olympic Channel Writer. (2021). Indian women who broke the glass ceiling in Olympic sports. Olympic Channel : IOC.

Phor, R. K. (2012). Mary Com : The Pride of Indian Boxing. Journal of Global Research & Analysis (A Multi-Disciplinary Refereed Research Journal), 1(1), 260-266.

QuestionPro. (2022). Top 15 Health Survey Questions for Questionnaires.

Roopa, S. & Rani, M.S. (2012). Questionnaire Designing for a Survey. The International Journal of Indian Orthodontic Society, 46(4), 273-277.

World Health Organization. (2022). In Wikipedia.

APPENDIX

SELF APPRAISAL OF HEALTH

- **PLEASE ENCIRCLE THE APPROPRIATE NUMBER**

1) I am presently satisfied with my sleep and rest.

Not at all Most
1 2 3 4 5 6 7 8 9

2) I get sound sleep.
3) Vague fear and/or anxiety/bad dream often disturb my sleep.
4) I take sufficient nutritional (balanced) diet.
5) I am particular about my diet.
6) I do weight/diet control.
7) I do regular/moderate (reasonable) hard physical work (At least 30 minutes/day),
8) Regular moderate exercises/ work stimulates my appetite.
9) Presently I am improving on upon my study.
10) My health is improving.
11) I take care of personal hygiene (such as brushing the teeth, washing the hands and mouth before/after food, regular bath, wearing clean clothes etc.
12) I cut my nails regularly and keep them clean.
13) I do care for proper ventilation, study light, correct postures, regular medical check-up etc.
14) I have regular bowel movements.
15) I indulge myself in smoking.
16) I indulge myself in alcoholism.
17) I can concentrate on my work very well.
18) I do consume eatables exposed to dust and flies.
19) I try to avoid mental stress of any type and try to remain cheerful.
20) I like to mix-up with people and share their feelings.
21) I am prone to infectious/diseases.
22) My biological cycles (Menstrual cycles) are regular.
23) I enjoy sports and recreation.
24) I do participate regularly in different recreational activities and sports.
25) I consider sports as a good pastime.
26) I go on outings with my collegemates/friends.
27) I do not participate in religious functions such as Holi, Durga puja, Diwali, Mahavir Jayanti, Christmas Day etc.
28) I participate in social functions.
29) I participate in cultural programmes held in my college.
30) I go to temple/gurudwara/mosque/church etc. for worship.
31) In the event of sickness, I prefer to take treatment from any quack.
32) In the event of sickness, I prefer to take treatment from my family doctor only.
33) In the event of sickness, I prefer not to take any treatment.

- **ANSWER THE FOLLOWING**

34) How many hours do you sleep daily on an average?

35) How many hours do you spend for rest in day times?

36) How many times do you take meal per day on an average? (Meal include breakfast, lunch, evening snacks, dinner etc.)

37) How many meals you skip or fast per week on an average?

38) How many hours do you spend for study apart from studying in classroom?

39) How many hours do you do moderate work? (Walking, singing, dancing, travelling, marketing, driving, etc.)

40) Have you suffered any of the following recently? (Please encircle).

- Diptheria
- Cholera
- Typhoid
- Malaria
- Jaundice
- Any other

41) Are you prone to: -

- Frequent cough and cold
- Frequent fever
- Diarrhea/constipation

42) Do you suffer from any of the menstrual problems given below?

- Pain or cramps during menses
- Profuse bleeding during menses
- Menses lasting more than seven days
- Irregular menses
- Intermenstrual bleeding i.e., bleeding between the menstrual periods
- White discharge (leucorrhea) in excess
- Blood-stained leucorrhea
- Backache during menses
- Any other problem
- No problem!