Socio-demographic conditions of the realization of health-oriented lifestyles by women

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Abstract

Background & Study Aim: We can talk about lifestyle when we deal with certain configurations of behaviour patterns, relatively constant and repetitive, in situations where there are conditions for alternative behaviours. Vitally significant in the realization of lifestyles are values which constitute the basis for human action, the criteria for the choices made. The aim of the study was socio-demographic conditions of the realization of health-oriented lifestyles by women.

Material & Methods: Research conducted between 1999 and 2004 included 1361 women aged 20–75, living in cities of western Poland and participating in recreational physical exercise (purposive sampling). The diagnostic survey method was employed (the techniques of questionnaire, interview, List of Health Criteria). For the verification of the research hypotheses concerning the conditions (age, number of children, professional activity) of a health-oriented lifestyle (the recognized health and/or physical fitness values were set together with health-related behaviours: physical activity, forms of vacation, nutritional status, avoidance of smoking, moderate consumption of alcoholic beverages) the χ^2 independence test and the multiple correspondence analysis were used.

Results: Women who appreciated the values of health and physical fitness (28.1%) were mostly characterized by many-year participation in physical exercise ($p=0.0123$ for the χ^2 test), choice of active forms of relaxation ($p=0.0396$ for the χ^2 test), moderate consumption of alcoholic beverages ($p=0.0353$ for the χ^2 test), mainly with low alcohol content ($p=0.0054$ for the χ^2 test). No statistically significant dependences were found between recognition of these values and smoking or body weight of the subjects. Women who recognize the values of health and physical activity, or only health, with 7 or more years of history of participation in physical recreation, choosing vacations directly connected with physical activity and avoiding consumption of alcoholic beverages, are mainly professionally active or temporarily inactive individuals aged 30 to 49, having one child.

Conclusions: In the dissemination of physical activity in our society it is necessary to promote the value of physical activity, presenting it in the context of health-oriented lifestyle. Lifestyle in such an approach can be applied in analysing the results of the process of education.

Key words: professional activity • professional inactivity • ex-smokers • health-oriented lifestyle • values

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Background

In light of the WHO definition, health means "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" [1]. It is also "the ability to lead an productive, meaningful and creative life in the social and economic realms" [2]. According to the concept of health-related physical fitness [3], the connection to the fullness of human health is the basis for defining physical fitness. Health

depends, among others, on physical activity, which conditions physical fitness, and therefore involves making choices that characterize a lifestyle. We can talk about lifestyle when we deal with certain configurations of behaviour patterns (relatively constant and repetitive) in situations where there are conditions for alternative behaviours [4]. This is the case with individuals engaging in regular physical activity. In the context of the above reasoning, the concepts of health and physical fitness require combined consideration with the exposure of their interrelations, theoretical, empirical and methodological. These relationships are not always explicit and do not always operate in one direction, as evidenced by results of recent research [5–7].

Value – "Every element of broadly understood objective reality (…) which is a source of permanent needs and aspirations of man, having a motivational function and triggering certain attitudes, being in consequence a determining factor in action…" [38].

Vitally significant in the realization of lifestyles are **values** which constitute "a general criterion by which examined individuals consider different objects to be worthy of positive evaluation" [8], sometimes also referred to as life values. In classical axiological literature [9] different kinds of values are distinguished, including recognized values, which "are declarative in character, so they are rather a measure of group conformity and reflect the extent of particular ideas (…), applied values involve our commitment…" [10], and practical verification. Values constitute the basis for human action, the criteria for the choices made. The relationship between values and behaviour is very complicated, though. Because of empirical and methodological difficulties, usually the recognized (declared) values are studied, and rarely the applied ones. With regard to women who regularly participate in physical recreation, the recognized values of health and fitness seem to have the attributes of applied values. Whether it is really so, weather it concerns all female recreation participants, and whether it is related to other behaviours connected with health, it will be at least partially possible to learn after confronting the recognized values with the applied ones within the context of the current situation of the respondents.

Health-oriented lifestyle – various configurations of patterns of behaviours related to health (relatively constant and repetitive), in situations where there is a choice of alternative behaviors. It is values that constitute the criterion by which health-related behavioral patterns are chosen.

The aim of the study was socio-demographic conditions of the realization of **health-oriented lifestyles** by women.

The following hypotheses were assumed:

1. In the individual, multidimensional concept of health of women participating in physical recreation, physical criteria play an important part.
2. Women who recognize the values of health and physical fitness, mostly display behaviours connected with health.
3. The feasibility of the realization of health-oriented lifestyles by women is affected by their age, number of children and **professional activity**.

Professional activity – participation in the process of social production, performance of gainful work. Professionally active population consists of all people working at jobs (employers, employees, the self-employed, relatives voluntarily helping in family businesses and registered unemployed people) [37].

Professional inactivity – includes women permanently professionally inactive (old-age and ill-health pensioners) as well as those temporarily professionally inactive (on maternity or child-raising leave, not working, unemployed).

Material and Methods

Research into women's lifestyles has been conducted by the author and trained interviewers since 1995 and is still in progress. The results used in this study were collected between 1999 and 2004. The study included 1361 women aged 20–75, living in cities of western Poland (Gorzow Wielkopolski, Poznan, Szczecin, Wroclaw, Zielona Gora). Purposive sampling, which selected only women who had been participating in organized recreational activities for at least a year, was a significant complication. For comparison: participation in sport for all (at least once a week for 5 months a year) was declared by only 38% of female inhabitants of Warsaw [11]. The respondents were mostly under 50 years of age (72.5%), married (57.4%), with post-secondary education (61.6%), professionally active (55.3%), and almost 90% of them evaluated their financial situation as good or very good. 36.4% of the women were childless. Most of the subjects participated in organized exercise twice a week (49.6%) or more frequently (36.9%), devoting to them 61 to 120 min (47.8%) or more (41.7%). Among organized forms of recreational physical activity dominated gymnastics in its modern and traditional varieties (about 80% of responses). Less popular were swimming and individually practiced jogging and cycling (approximately 10% each). Seasonal sports, sports games and martial arts were practiced by a total of about 4% of respondents.

In the research into physically active women's lifestyles the diagnostic survey method has been employed, with the use of the techniques of: questionnaire, interview, PRO-ZET scale of health-oriented attitudes, List of Health Criteria [12], and document analysis. A detailed description of the research methodology was published with the study concerning associations between physical activity and other elements of women's lifestyles [13]. In the present study, material obtained by means of survey questionnaires and interviews was used, which is directly connected with socio-demographic features of the subjects (age, number of children, professional activity), and recognized life values (especially the values of health and physical fitness) in the context of application of those values (e.g. physical activity in organized groups, choice of active vacations, proper diet, avoidance of smoking, abstinence or moderate consumption of alcoholic beverages). The application of the List of Health Criteria served to characterize the main dimensions of health. Out of 23 criteria each respondent chose six most important to her, and put them in order of importance. 6 points were granted for being ranked in the first place, 5 points for the second, etc. Points scored by the chosen health criteria revealed the women's inclinations in the way they perceived health.

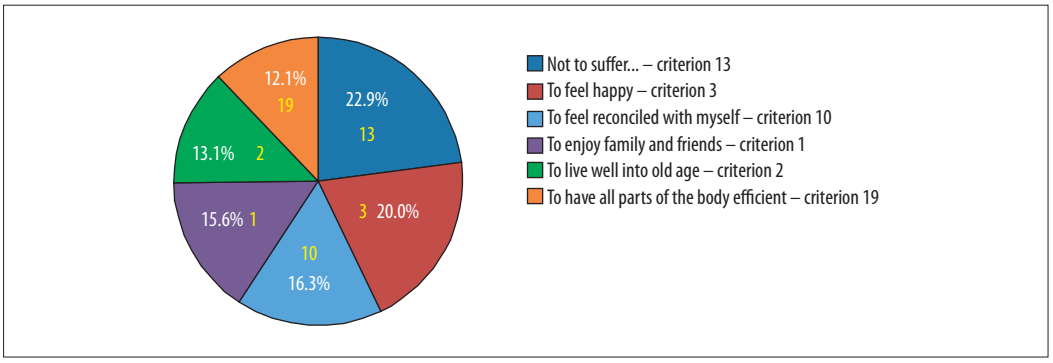

Figure 1. Subjects' ways of perceiving "health".

Based on the information submitted by the subjects concerning each person's current body weight and height, their nutritional status was assessed and their BMI was calculated. According to the most commonly accepted criteria [14], the proper BMI for women should amount to 20.0 to 24.9 kg/m^2; values ranging from 25.0 to 29.9 kg/m^2 indicate overweight, equal to or exceeding 30.0 kg/m^2 – obesity, and below 20.0 kg/m^2 – underweight. As far as smoking cigarettes is concerned, among the physically active women were those who: did not smoke, smoked (regularly or occasionally), and had given up smoking. In the evaluation of alcoholic beverages consumption 3 categories were distinguished: not drinking, rarely drinking alcoholic beverages (1–2 times a month or less often), and frequently drinking alcoholic beverages (1–2 times a week or more often). After excluding the non-drinkers from the analyses, 3 groups were distinguished: subjects consuming beer, those who preferred other low-alcohol beverages (e.g. wine, liqueurs), and those drinking high-alcohol beverages.

The women's physical activity histories were classified according to the number of years of taking exercise, reported by the respondents and verified by the physical recreation instructors [15,16]. On grounds of the results obtained individually for each woman, the lower quartile (25th percentile), the median (50th percentile) and the upper quartile (75th percentile) were determined and thus four groups were formed: G I – subjects who had been exercising for 1 year; G II [1-4); G III [4-6); G IV ≥7. In the analysis of forms of relaxation during vacation the subjects declared either forms connected with participation in physical activity or others, not involving physical exercise. In the area of their professional activity the women were divided into: working, permanently inactive (pensioners), temporarily professionally inactive (on maternity leave, child-raising leave, not working, unemployed), and studying in schools or universities. The subjects had: no children, one child, two children, or three or more. The assumed age groups are connected with different phases of women's lives.

For the verification of the research hypotheses concerning the relationships between women's age, the number of children they have, their physical and professional activity, and he values that they recognize and apply, the trait frequency and the χ^2 independence test were used. In search of correlations between these variables the multiple correspondence analysis was employed [17], which made it possible to illustrate them in a graphic and combined manner, especially regarding qualitative data. Statistica 8.0 software package (StatSoft, Inc. USA) was used to make calculations.

Results

In the multidimensional characteristics the most important were the physical dimensions associated with the criteria: 13 – not to suffer from anything more serious than a cold, flu or indigestion, 2 – to live well into old age, 19 – have all the parts of the body efficient. The subjects also characterized health through the other dimensions: social (1 – to be able to enjoy family and friends), mental (3 – to feel happy most of the time), and spiritual (10 – to feel reconciled with myself) (Figure 1).

Diversity of the value system consists in different amounts of importance that respondents attach to particular values (Table 1). Health and family happiness were chosen most often, then – almost twice less often – reciprocated love and work. Physical fitness was ranked in the middle among life values. Some values underwent re-evaluation as the subjects got older. Health as a value had the least importance for subjects aged 20–29 ($p=0.0003$ for the χ^2 test; all the values of p refer to the χ^2 independence test, therefore in subsequent descriptions this information is not given), but with age it gradually gained in importance. The youngest women (aged 20–29) valued requited love ($p=0.0000$) and friends' support ($p=0.0006$) the most. For subjects aged 20 to 39 prosperity was more important than for others ($p=0.0003$), but they ascribed much less importance to clear conscience ($p=0.0000$). This last value gained in importance among women aged 60–75 who also valued possibilities of seeing the world the most ($p= 0.0004$). Respondents aged 50–59 attached

Table 1. Life values *vs.* age, number of children, professional activity, and length of physical activity (χ^2 independence test).

Specification	Life values (n=1361)											
	Health (1190)	Family happiness (n=1049)	Requited love (n=537)	Work (n=509)	Prosperity (n=502)	Clear conscience (n=478)	Physical fitness (n=433)	Personal independence (n=355)	Friends' support (n=327)	Possibilities of seeing the world (n=298)	Total	
											n	%
Age (in years)												
20–29	81.4	72.3	53.3	34.3	43.0	26.4		27.6	31.9	23.8	386	28.4
30–39	90.0	84.3	41.2	44.7	41.9	29.4		24.7	25.5	16.4	280	20.6
40–49	89.1	81.9	37.1	46.9	31.6	41.2		21.1	20.3	18.1	320	23.5
50–59	93.5	76.9	32.1	35.7	29.6	36.9		36.3	20.8	25.0	169	12.4
60–75	87.9	68.9	23.4	22.0	34.2	50.0		27.0	18.5	31.9	206	15.1
Number of children												
Childless	88.2	81.7	35.8			33.1		26.7	21.5	21.4	495	36.4
One	91.1	86.8	34.8			38.4		22.1	20.7	20.6	414	30.4
Two	94.5	87.8	35.6			46.6		20.8	8.3	12.5	206	15.2
Three or more	82.6	63.6	48.0			32.7		31.0	32.0	26.0	245	18.0
Professional activity												
Working	88.4	78.7	39.5	46.5	36.9	33.0		26.5	25.5	19.1	751	55.3
Permanently inactive	90.1	73.3	26.1	23.4	33.2	47.0		28.2	18.3	30.6	296	21.8
Temporarily inactive	93.1	91.2	49.5	28.3	49.5	36.4		11.6	25.5	13.5	102	7.5
Studying	77.4	70.3	55.8	31.3	37.6	27.1		30.3	29.1	26.1	210	15.4
Length of physical activity												
1 year			43.9	42.9			27.0	20.9		17.9	397	29.2
[1–4)			41.8	41.0			30.3	24.7		21.1	380	27.9
[4–7)			38.9	37.8			35.3	32.7		20.3	252	18.5
7 years or more			33.3	27.6			38.2	30.6		30.6	332	24.4

* In order to achieve greater clarity of the results, Table 1 contains only statistically significant values. The data presented refer to individual values in dichotomous terms (they show only positive answers).

great importance to personal independence (p=0.0083). Work was important mainly for subjects aged 30–49 (p=0.0000). Physical fitness as a value never occurred alone, and usually in connection with health; there was no statistically significant dependence between the subjects' age and the choice of this value.

Health and family happiness were less important for women with three children (p=0.000 and p=0.0000 resp.), who valued requited love, personal independence and friends' support more (p=0.0001, p=0.0139 and p=0.0000 resp.). For women with two children clear conscience was more important (p=0.0444), less important being personal independence and possibilities of seeing the world (p=0.0262). Childless women as well as those who had one child were characterized by similar value systems. The values of work, good financial situation and physical fitness did not make subjects differ in statistically significant ways.

Statistically significant dependences were found between women's professional activity and their life values. Working women appreciated the value of work the most (p=0.0000), and ranked health and clear conscience significantly lower (p=0.0000 in both cases). Students ascribed great importance to requited love (p=0.0000), personal independence (p=0.0049), and possibilities of seeing the world (p=0.0000). This last value was also treasured by permanently professionally inactive women, who highly valued clear conscience (p=0.0000), and attached less importance to requited love and friends' support (p=0.0294). Those on maternity or child-raising leaves appreciated the values of health, family happiness (p=0.0001), requited love and prosperity (p=0.0083), considering personal independence less valuable. Physical fitness as a value did not differentiate the subjects.

Dependences between the length of physical activity and choices of particular values were observed in the cases of requited love (p=0.0271), work (p=0.0001), physical fitness (p=0.0071), personal independence (p=0.0021), and possibilities of seeing the world (p=0.0004). Women with the longest physical activity histories highly rated

Table 2. Subjects' health-related behaviours *vs.* their recognized values (χ^2 independence test).

Health-related behaviours	Recognized values				Total		p for X^2 test
	Health and physical fitness (n=382)	Health (n=808)	Physical fitness (n=51)	Other values (n=120)	n	%	
Length of physical activity							
Under 1 year	24.3	30.8	25.5	35.0	397	29.2	0.0123
[1–4)	26.2	29.2	27.5	25.0	380	27.9	
[4–7)	19.1	18.3	29.4	13.3	252	18.5	
Over 7 years	30.4	21.7	17.6	26.7	332	24.4	
Forma of vacation							
Physically active	60.7	54.5	66.7	50.0	766	56.3	0.0396
Inactive and others	39.3	45.5	33.3	50.0	595	43.7	
BMI [kg/m^2]							
<20	16.0	19.6	21.5	16.7	250	18.4	n.s.
[20.0–25.0)	57.8	55.3	64.7	65.8	780	57.3	
[25.0–30.0)	20.2	21.8	11.8	15.8	278	20.4	
>30	6.0	3.3	2.0	1.7	53	3.9	
Tobacco consumption							
Non-smokers	60.0	56.3	68.6	63.0	791	58.4	n.s.
Smokers	11.8	13.9	11.8	13.5	179	13.2	
Ex-smokers	28.2	29.8	19.6	23.5	385	28.4	
Consumption of alcoholic beverages							
Non-drinkers	13.9	11.6	9.8	12.5	167	12.3	0.0353
Drinking rarely	72.3	72.9	70.6	60.8	974	71.6	
Drinking often	13.8	15.5	19.6	26.7	220	16.1	
Types of consumed alcoholic beverages							
Beer	31.4	33.5	60.0	42.3	413	34.7	0.0054
Wine and low-alcohol	58.2	55.5	28.9	49.0	651	54.7	
High-alcohol	10.4	11.0	11.1	8.7	126	10.6	

the values of physical fitness, personal independence (much like those who had been exercising for 4 to 7 years), and being able to see the world; requited love and work were of lesser importance to them. Physical fitness as a value gained in importance with increasing length of the women' physical activity (p=0.0071).

The recognized health and/or physical fitness values were set together with health-related behaviours (Table 2). Statistically significant dependences were found between the recognition of the values of health and physical fitness and the length of physical activity history and the choice of active vacations (p=0.0123 and p=0.0396 resp.). Subjects who recognized both the value of health and that of physical fitness were characterized by the longest physical activity (7 or more years). Health as a value was more important for women who had been exercising for less than four years. Other values were reported mainly by subjects with one-year histories of participation in exercise. Physically active vacations were chosen by most women, but more rarely by those who recognized the values connected with neither health nor physical fitness. There were no statistically significant relations between the application of the analysed values and the nutritional status of the subjects; the respondents mostly had proper body weight (57.3%). Most subjects had never smoked (58.4%). There were slightly more non-smokers among women who recognized the value of physical fitness (68.6%), but these dependences were not statistically significant. Moderate consumption of alcoholic beverages was declared by almost 88% of the examined women, including 71.6% drinking rarely (1–2 times a month and more rarely) (p=0.0353). Frequent consumption of alcohol was characteristic of women who recognized other values (26.7%). Subjects who declared consumption of alcoholic beverages preferred mainly beer, wine, and other low-alcohol beverages (p=0.0054). Those who recognized the value of physical fitness drank beer more often, whereas those who chose the other analysed values consumed wine and other beverages with low alcohol content.

In order to present chosen correlations in a combined manner, multiple correspondence analysis was used (Figure 2, Table 3). It was found that women involved in regular physical activity aged 20–29, childless (1a), more often recognized the value of physical fitness (C) and other values, not connected with health or physical fitness (D). Subjects from G I and G II drank more often (2c); respondents from G III declared consumption

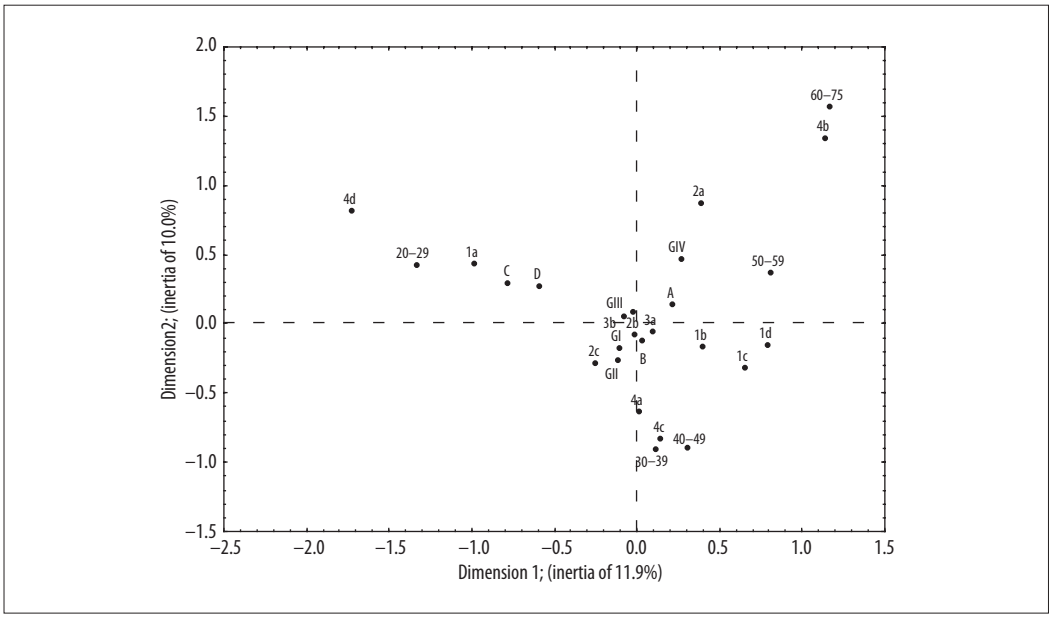

Figure 2. Determinants of the realization of lifestyles by subjects. See Table 3 for the data for the figure.

of alcoholic beverages in moderate amounts, but rarely (1–2 times a month or more rarely) (2b) and chose forms of vacation which were not directly connected with physical activity (3b); women who had been exercising for less than 7 years were similar in terms of behaviours they displayed. Subjects from G IV, who chose the values of health and physical fitness (A), more often reported abstinence from alcoholic beverages (2a) and chose forms of vacation directly involving physical activity (3a). Subjects who recognized the value of health (B) were professionally active (4a) or temporarily inactive (4c), had one child (1b), and were 30–39 or 40–49 years old. Women aged 50–59 more often had two children (1c) or three or more (1d). In peripheral position were women aged 60–75, permanently professionally inactive (4b), and students (4d). These subjects were characterized by diversified recognition and application of life values, diversified lifestyles.

Discussion

In search of manifestations of the realization of health-oriented lifestyles it was necessary to determine the way of perceiving health by subjects, and check which dimensions of health best served to characterize this notion [12]. The first hypothesis was confirmed, that the physical dimensions of health (criteria 13, 2, 19) were present in its multidimensional concept. However, health described as absence of disease (criterion 13) occurred less often than health seen through the prism of its positive manifestations. Among six most important dimensions criterion 19 (efficiency of all the parts of the body) was in the 6th place, which proves that people with at least one-year physical activity history notice associations between physical fitness and health. These findings have been borne out. Respondents from countries with high physical activity levels in their populations tended to attribute a greater role in strengthening health to this activity than those from countries with low physical activity (Finns – 44%; Greeks and Italians – 9% resp.) [18].

According to the Public Opinion Research Center, the life values most often mentioned by Polish people [19] were family, health and work. A study of three generations reported analogous findings; the most highly valued was family, having children, and then health, work and other values [20]. Whereas in this study respondents chose health, family happiness, and then requited love and work. Putting health first in the system of values is linked to involvement in recreational exercise [21]. The value of health was more often recognized by subjects who had been exercising for 6 months or longer than by those physically passive (63% and 47% resp.). The value of physical fitness, as a significant, separate element of the system of life values, rarely happens to be the object of research [22]. With regard to physical education university graduates or people involved in qualified or recreational sport, this distinction is justified. The choice of the value of physical fitness was solely connected with the length of their physical activity history. The high rank of requited love, shown in the findings of this study, resulted from it being pursued by subjects under 30 years of age, studying or temporarily professionally inactive (on maternity or child-raising leaves), having three or more children. The value of positive emotions connected with another person's presence is appreciated more by women with shorter

Table 3. Determinants of the realization of lifestyles by subjects. Data for Figure 2.

Arrangement of column and row coordinates for n=1358							
Symbol	**Explanation**	**Dimension 1**	**Dimension 2**	**Symbol**	**Explanation**	**Dimension 1**	**Dimension 2**
4d	Professional activity: studying	–1.724	0.810	30–39	Age (in years): 30–39	0.120	–0.912
20–29	Age (in years): 20–29	–1.330	0.423	40–49	Age (in years): 40–49	0.314	–0.903
1a	Number of children: childless	–0.984	0.426	4c	Professional activity: temporarily inactive	0.148	–0.834
C	Recognized values: physical fitness	–0.777	0.285	4a	Professional activity: working	0.013	–0.636
D	Recognized values: other than health and physical fitness	–0.588	0.267	1c	Number of children: two	0.654	–0.318
2c	Consumption of alcoholic beverages: drinking often (1–2 times a week or more often)	–0.246	–0.292	2c	Consumption of alcoholic beverages: drinking often (1–2 times a week or more often)	–0.246	–0.292
GII	Length of physical activity: [1–4)	–0.109	–0.265	GII	Length of physical activity: [1–4)	–0.109	–0.265
GI	Length of physical activity: under 1 year	–0.106	–0.184	GI	Length of physical activity: under 1 year	–0.106	–0.184
3b	Form of vacation: not involving physical activity	–0.076	0.046	1b	Number of children: one	0.399	–0.169
GIII	Length of physical activity: [4–7)	–0.023	0.083	1d	Number of children: three or more	0.798	–0.156
2b	Consumption of alcoholic beverages: drinking rarely (1–2 times a month or less often)	–0.013	–0.083	B	Recognized values: health	0.032	–0.122
4a	Professional activity: working	0.013	–0.636	2b	Consumption of alcoholic beverages: drinking rarely (1–2 times a month or less often)	–0.013	–0.083
B	Recognized values: health	0.032	–0.122	3a	Form of vacation: involving physical activity	0.097	–0.059
3a	Form of vacation: involving physical activity	0.097	–0.059	3b	Form of vacation: not involving physical activity	–0.076	0.046
30–39	Age (in years): 30–39	0.120	–0.912	GIII	Length of physical activity: [4–7)	–0.023	0.083
4c	Professional activity: temporarily inactive	0.148	–0.834	A	Recognized values: health and physical fitness	0.218	0.137
A	Recognized values: health and physical fitness	0.218	0.137	D	Recognized values: other than health and physical fitness	–0.588	0.267
GIV	Length of physical activity: 7 years or more	0.269	0.459	C	Recognized values: physical fitness	–0.777	0.285
40–49	Age (in years): 40–49	0.314	–0.903	50–59	Age (in years): 50–59	0.817	0.370
2a	Consumption of alcoholic beverages: not drinking	0.396	0.864	20–29	Age (in years): 20–29	–1.330	0.423
1b	Number of children: one	0.399	–0.169	1a	Number of children: childless	–0.984	0.426
1c	Number of children: two	0.654	–0.318	GIV	Length of physical activity: 7 years or more	0.269	0.459
1d	Number of children: three or more	0.798	–0.156	4d	Professional activity: studying	–1.724	0.810
50–59	Age (in years): 50–59	0.817	0.370	2a	Consumption of alcoholic beverages: not drinking	0.396	0.864
4b	Professional activity: permanently inactive	1.143	1.330	4b	Professional activity: permanently inactive	1.143	1.330
60–75	Age (in years): 60–75	1.175	1.559	60–75	Age (in years): 60–75	1.175	1.559

histories of physical activity. In an analysis of the value system of working and retired individuals [23] it was observed that the value of requited love gained in importance among young, studying women.

Women who recognized both the value of health and physical fitness constituted about 28% of the sample examined and were characterized by longer physical activity histories. The majority of those who recognized only the value of health (almost 60%) had been exercising for less than 4 years, successfully fighting their smoking habit. **Ex-smokers** accounted for almost 30% of those who appreciated the value of health. According to the Global Adult Tobacco Survey (GATS 2009–2010) [24], in Poland 21% of adult women smoke daily. Ex-smokers represent 16.3% of the population. Women participating in physical activity who appreciate the values of health and physical activity, or only health, more often give up smoking (28.4%). Positive associations between taking exercise and avoiding tobacco consumption were found among students [25]. A high proportion of subjects who gave up smoking may result from their awarness of hazards that smoking poses, as well as from legal regulations, e.g. a ban on smoking in public places.

Ex-smokers – subjects who started smoking cigarettes in the past and after some time gave up the habit.

In light of the European Health Interview Survey (EHIS) conducted in 2009 [26], abstinence was declared by 25% of Polish adults and alcohol consumption by 65% of women. Every 22nd drinking woman admits more frequent consumption than once a week. According to some research findings, there is no apparent associations between consumption of alcoholic beverages and physical activity in free time [27], whereas according to others these associations were observed [28]. In light of the present study about 88% of the subjects declared moderate consumption of alcoholic beverages. 220 subjects drank alcohol more often than once a week, that is almost every 6th physically active woman. At the same time, most respondents who declared moderate alcohol consumption chose low-alcohol beverages (78.4%). These findings are analogous with the EHIS observations from 2009, in light of which it was estimated that high-alcohol beverages were being superseded by those with low alcohol content. Research has also shown that there are few abstainers among women who take exercise, and about 90% of those who drink alcohol do it in moderation, which does not have to affect health in negative ways [29].

No statistically significant dependence was found between subjects' choice of particular values and their maintenance of proper body weight. Comparing research findings concerning subjects from the EU who had been physically active for at least six months [21] and results of a study of female inhabitants of Lodz and Lublin aged 20–64, 55% of whom participated in physical recreation in their free time [30] with the present study findings, it was observed that among women involved in regular exercise proper body weight was more common (36%, 48.2% and 57.3% resp.), overweight less common (26%, 30.3% and 20.4% resp.), and obesity many times less common (16%, 21.6% and 3.9% resp.).

The latest research has reported that the association of behaviours which are unfavorable to health with disadvantageous socio-demographic and economic conditions affects lifestyle [31–33], but seeing one's own behaviours as negative influences the choice of a health-oriented lifestyle [34]. Once again it was confirmed that people with the highest professional qualifications more often participate in physical activity in their free time [35], as well as those with higher education [36].

Conclusions

1. In the individual characteristics of health, defined by the women regularly participating in physical recreation, "efficiency of all parts of the body" is its important physical dimension.
2. Women who appreciate the values of health and physical fitness mostly display health-oriented behaviours (many-year participation in physical exercise, choice of active forms of relaxation, moderate consumption of alcoholic beverages, mainly with low alcohol content).
3. The feasibility of the realization of health-oriented lifestyles by women is affected by their age, number of children and professional activity. Women who recognize the values of health and physical activity, or only health, with 7 or more years of history of participation in physical recreation, choosing vacations directly connected with physical activity and avoiding consumption of alcoholic beverages, are mainly professionally active or temporarily inactive individuals aged 30 to 49, having one child.
4. In the dissemination of physical activity in our society it is necessary to promote the value of physical activity, presenting it in the context of physical fitness related to health and health-oriented lifestyle. Lifestyle in such an approach can be applied in analyzing the results of the process of education.
5. In the intergenerational transmission of lifestyle patterns, leading roles are traditionally assigned to women. It is necessary to define the tasks in the physical education program aimed at increasing women's physical activity and preparing them to perform these roles.

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