



Article Knowledge, Perspectives, and Priorities Regarding Self-Care Activities: A Population-Based Qualitative Study among Iranian Adolescents

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Abstract: This qualitative study aimed to investigate knowledge, perspectives, and priorities related to self-care among Iranian adolescents. Through snowball sampling, the link to the questionnaire was shared in available social media apps. The results showed that 192 of 294 participants reported that they had heard about "self-care". Parents/family and school were the most frequent sources of learning about self-care among the male and female respondents, respectively. Analyzing the participants' statements regarding their own understanding of self-care activities, three major terms— "taking care of", "avoid", and "respect" were identified. When being ask about what they do for their own self-care, the results showed spending time on the Internet had the highest repetition rate among boys' responses, followed by "going to gym", "video games", and "listening to music". Regarding the desired activities, both girls' and boys' statements indicated that among leisure activities, "traveling" was the most frequent word, followed by being with friends. The girls showed more interest in attending night clubs or spending time outside the home late at night. Insights from this study identifying preferences in self-care activities can be used to develop intervention programs for Iranian adolescents to improve their lifestyle and, consequently, their well-being based on their needs and situation.

Keywords: self-care activities; Iranian adolescents; youth; qualitative study

1. Introduction

In June 2019, the World Health Organization (WHO) published the "Consolidated Guideline on Self-Care Interventions for Health", a document that was the first in its kind in targeting sexual and reproductive health and was presented as an important milestone for the WHO. Self-care is considered the most novel and promising strategy aimed at improving different aspects of health and well-being [1].

Regarding today life's challenges targeting human's mental and physical health, there is an increasing need for individuals to undertake responsibility for their own health and involve in self-care more actively [2]. Hence, worldwide, several researchers from different disciplines are actively studying self-care, and it seems that this enthusiasm will continue [3].



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Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). Generally speaking, self-care is a self-oriented act or practice which is done by individuals to maintain and improve their health. Self-care is also described as any purposeful action to look after physical and psychological well-being [4]. As a simple definition, self-care is a care provided "for you, by you" to maintain health and cope with heath issues [5].

Self-care is a comprehensive concept and includes a wide range required for people to meet their social and psychological needs. Therefore, it transcends traditional concepts of self-management actions, as they mostly focus on learning techniques to manage a health issue [6,7].

As the majority of self-care behaviors are performed by the focal person unaccompanied by specialists, self-care could be considered the main form of early care [8]. Enhancing health status and quality of life as well as increasing life satisfaction are some of the notable positive effects of the solidification of appropriate self-care approaches in communities [9]. It is an acquired behavior; therefore, cultural, social, and spiritual beliefs can limit or reinforce self-care behaviors, especially in more traditional regions and families.

Keeping the above in mind, adolescents, due to increasing life challenges, are more vulnerable and exposed to several health concerns caused by the sexual and mental effects of puberty as well as their new social roles [10,11]. Negative physical and mental consequences of adolescence-related problems, e.g., chronic diseases, low self-esteem and self-confidence, obesity, mood disorders, and behavioral problems, if not addressed, may accompany individuals for the rest of their lives or at least for a long period of time [12–16]. Hence, the importance of preventive and promotive measures to help adolescents develop and sustain a healthy lifestyle is undeniable [17]. In this regard, the high potential of adolescents themselves should not be overlooked. Reframing the nature of the issue to enable adolescents to improve their lifestyle through empowering them might be an effective master plan for overcoming their age-related challenges. The promotion of healthy lifestyles in adulthood. This life stage is the best time to maintain and stabilize independent self-care and create sustainable self-care routines for the rest of life [18].

Compared to those in developed countries, adolescents living in developing countries generally receive less life skills and self-oriented training and information regarding how to improve their lifestyle. A great number of these adolescents suffer from several health and life issues, such as unhealthy eating habits and/or malnutrition, iron-deficiency anemia, sedentary, tooth decay, mood disorders, and weak communication (especially with the opposite sex) and life skills [19–21].

Recently, in Iran, a developing country, different local and national programs have been launched to improve the lifestyle and quality of life of individuals in different age groups, including adolescents [22,23]. However, health promotion for Iranian adolescents is still in its infancy [24]. Studies on adolescents' self-care in Iran have mostly focused on adolescents with specific health physical or psychological problems, e.g., diabetes, asthma, or epilepsy, while the population of healthy adolescents (especially males) is rarely considered [8,25–29].

Assessing knowledge, needs, and attitudes regarding health matters/issues is essential for commissioning and health planning, and can be considered as a systematic approach of identifying the unmet health needs of a certain population to make changes to meet those needs [30,31]. The available sources and literature indicate that Iranian adolescents' perspectives, attitudes, and needs are not well studied. The lack of this fundamental information could be a significant obstacle in developing appropriate evidence-based and validated self-care programs for Iranian adolescents [8,25,26,32]. There is a large gap between the real needs and the sporadic self-care programs for adolescent health in Iran that negatively affects the outcomes of programs. As complex interventions do not always follow a predictable progression, the results of the current study can enhance the flexibility and effectiveness of self-care-based programs. In designing this study, we follow the Medical Research Council's "complex intervention evaluation framework" [33,34],

building on a three-step approach. The first step is to recognize and define the issue and its context, the second step is to design/develop the intervention, and the last step is to enhance and modify the process. The current study focused on the first step in identifying and understanding the context of self-care among Iranian adolescents and finding support regarding the appropriateness of the original data [35].

To the best of our knowledge, no qualitative study of the self-care-related perspectives, attitudes, information, and needs of Iranian adolescents exists. Therefore, the main objective of the current qualitative study was to investigate perceptions, attitudes, and challenges related to self-care among healthy Iranian adolescents from their own point of view while considering gender differences. More specifically, this study aimed to answer these research questions.

- What Iranian adolescents know about self-care and self-care activities and where they
 mostly get the information?
- Considering their gender, what Iranian adolescents DO as self-care?
- Considering their gender, what are the adolescents first choices of self-care activities (or what they called as self-care activities) if they have no limitation?

2. Material and Methods

2.1. Study Design

This is a descriptive phenomenological qualitative study with cross-sectional data collected in an online questionnaire with open and closed ended questions. Phenomenology is a qualitative method focusing on sharing life experiences and ideas among a specific population [36]. This method, basically, seeks a description of the nature of a specific event, experience, and/or a viewpoint. Researchers doing phenomenology studies, use an active process to achieve the detailed statements of real experiences of individual's life [37]. Descriptive phenomenology aims to reach in-depth, comprehensive real descriptions of individuals' experiences. The descriptions lead to an understanding of the person's everyday world as well as real and ideal objects to recognize "what participants know" about the phenomena [38,39].

2.2. Population and Sampling Method

The population of the current study included Iranian adolescents, both male and female, aged 14–20. The exclusion and inclusion criteria of this study were as follows: Inclusion: Iranian youth aged 14–20; having the knowledge and ability to fill out the questionnaire form; willing to participate in the study; and approving Section 2 (Informed Consent) of the questionnaire. Exclusion: Having a mental or physical disability that prevented the ability to provide informed answers to questions (according to the participants themselves and/or and according to the researcher when analyzing the answers). The purposive sampling technique was used, in which participants joined when they met the inclusion criteria and indicated their willingness to participate.

2.3. Development of the Study Instrument

An online open-ended questionnaire using Google Forms was the data collection instrument. Using online data collection was useful for collecting information from a wide range of participants in different areas. The questions were designed based on the studyspecific objectives to address the main objective. The SPIDER tool (sample-phenomenon of interest-design-evaluation-research type) was utilized for developing the questions [40]. In addition, the method of data collection, the study population, and cultural and ethical characteristics were considered during the development of the questionnaire. Finally, the questionnaire's reliability and validity were checked by two independent experts using Cohen's kappa interrater test.

In the first section of the online questionnaire, an overview of the study objective was provided for participants. Next, participants were asked to read and approve the informed consent section. Participants were not able to access the next sections if this section was not approved. The two following sections included the sociodemographic questions (age, sex, current education), and the main questions of the study related to self-care activities. The questions were as follows:

Question 1: Have you ever heard of "self-care" from anyone or tag about it anywhere? Please elaborate. Question 2: Regardless of your previous knowledge about self-care, how do you define it? Question 3: Could you please give some examples of self-care activities suitable for you, considering your age, sex, and personality? Question 4: Please name 3 activities you usually do in your leisure time. Question 5: Please list three activities you would like to do in your free times supposing that you do not have any limitations and every facility is available for you.

2.4. Data Collection

In qualitative studies, calculating a representative sample size is not a critical issue. Data collection can stop when no new information emerges from participants' statements (Mason, 2010). For phenomenological studies, at least 5–25 participants (depending on the study population and objectives) are suggested to assist a researcher in approximating the number of participants in a study; however, the final sample size depends on the research saturation [41].

In the data collection process, every effort was made to ensure that participants of both genders had equal access to online questionnaires. However, it seemed that girls were more inclined to participate in research than boys. Perhaps, because in traditional societies, girls are less heard and they are more motivated to express their opinions and needs. However, this is only an opinion and can be put into the test in future studies. In this study, despite the smaller number of male participants than female participants, an attempt was made to ensure data adequacy for both groups. We also reported the percentage of using self-care keywords by both genders (and not only the frequency) to explain the differences between these two groups more clearly.

Using the snowball sampling method, the link to the online questionnaire form was shared in available social media or communication application groups such as Telegram, WhatsApp, LinkedIn, and Instagram. Participants and parents were asked to share the questionnaire with their friends and the social media or communication applications they had access to. Completing the questionnaire took approximately 10–20 min. No personal identification information was requested from participants in the forms (except for their email address, which was optional). Data collection continued until data saturation was reached. These forms were completely confidential.

2.5. Data Analysis

In this study, prolonged engagement with and utilization of multiple data collection methods, persistent observation, and member checks were used to ensure credibility. Furthermore, after the original data and statements were transcribed (in Persian language), the data were translated to English once and then translated back to Persian (by other researchers). The data were coded using the open coding method [42].

The transcripts were checked and read several times to identify emerging themes and comments in order to generate the second category of codes. Afterwards, the data were thematically grouped according to the segments of conversations, and in the last step, all categorized themes were checked against the original transcript by the second researcher to ensure that the text confirmed the classification. All participants' personal identification was removed from the transcripts before the process started.

3. Results

3.1. Participants' Characteristics

Overall, 294 forms were completed by 92 males and 202 females. The mean age of the respondents was 17.49 ± 2.01 (17.48 ± 2.22 and 17.50 ± 1.99 years for males and females, respectively). Participants holding a bachelor's degree comprised the highest percentage of

respondents, followed by secondary school and university students. Table 1 represents the frequency and percentage of the respondents' sociodemographic characteristics (Table 1).

Table 1. Sociodemographic characteristics of the respondents.

Characteristics	Frequency	Percentage
Age Mean ± SD	17.49 ± 2.01	
Gender		
Male	92	31.3
Female	202	68.7
Current education status		
University student	68	23.1
Bachelor	81	27.5
Secondary school/second	74	25.2
Secondary school/first	52	17.6
Öther	19	6.6

3.2. Knowledge Regards Self-Care

Of 294 participants, 192 (64.86%) reported that they heard about "self-care" and "self-care activities". Television, social media/Internet, friends, parents/family, school/teacher, and health workers were the 6 keywords identified from the participant statements responding to the second question. Table 2 shows the percentages of different sources from which the participants learned or heard about "self-care" by gender.

Table 2. Where the respondents heard/learned about "self-care".

Source	Males (<i>n</i> = 52) *	Females (<i>n</i> = 140) *	
Television	11.54%	7.14%	
Social media/Internet	19.23%	18.57%	
Friends	15.38%	7.14%	
Parents/Family	23.08%	21.43%	
School	23.08%	41.43%	
Health workers	11.54%	2.86%	
Other sources (not specific)	3.84%	2.86%	

* Only respondents who answered "yes" to question #1 ("Have you heard about self-care before?") were included in this analysis.

In this regard, with equal percentages, parents/family and school were the most frequent sources of learning/hearing about self-care among the male respondents, followed by social media/Internet. On the other hand, school was the main source of learning for girls. With relatively large differences from school, parents/family, and the Internet ranked second and third, respectively. There were no restrictions on the number of responses, so some of the respondents mentioned more than one source. Meanwhile, a small number of respondents did not cite a specific source or stated that they did not remember where they had heard the term (Table 2).

3.3. Definition

Analyzing the participants' statements regarding their own definition/understanding of self-care activities (question number 2), overall, 3 major terms were identified. The first one was related to the statements indicating *"taking care of [....]"*. Taking care of different aspects of physical, mental, and spiritual health was pointed out in the participants' statements (Table 3).

Major Theme	Details	Subtheme
		Thoughts
		Assets
		Body
	physical health	Motivations
Taking care of my	mental health	Positive performance
Taking care of my		Emotions/Feelings
	spiritual health	Nutrition
		Happiness
		General health
		Self-confidence
		Diseases
		Harming myself
		Bad friends
Protocting myself from		Strangers
Protecting myself from		Stress and anxiety
/Avoiding		Drugs and substance
		Social risks/sexual abuse
		Family/peer conflicts
		Harmful activities
		My calm and peace
		My spiritual needs
Understanding/Respecting		My lifestyle
		My/others' feelings
		Ideas

Table 3. Terms related to the participants' definition/understanding of self-care activities.

A female respondent, 16: "Any activity I need to do to maintain my physical health and take care of my sense of peace."

A male respondent, 16: "In my opinion, the set of activities that make our minds free from vain thoughts is a kind of self-care, as well as taking care of our souls and bodies and having peace ... "

A male respondent, 17: "In my opinion, self-care means having the ability to take care of and maintain personal health."

A female respondent, 18: *"Take care of yourself and your body and soul, for example, ... having confidence."*

A female respondent, 19: "Self-care activities are activities that reduce anxiety and stress and, of course, physical pain."

A male respondent, 20: "I would define the term self-care as "taking care of oneself". For instance, one could "self-care" by spending more time and effort and paying attention to one's mental and physical well-being by performing a variety of actions towards one's well-being."

A female respondent, 18: "In my opinion, self-care is the basis of personal and social life. Self-care means inner, external and social cognition and comprehensiveness of the self, and accordingly, communicating properly with society and providing mental health for oneself and others."

A female respondent, 15: "Things that make us live happier."

The second major term indicated different behaviors related to "*avoid* [....]" or "*protect from* [....]", according to the respondents. These terms covered statements that mainly focused on what participants thought about the risks they needed to avoid regarding self-care:

A female respondent, 17: "Any activity that is intended to prevent harm to ourselves."

A male respondent, 18: "Beware of thoughts in order to avoid negative and harmful ones."

A female respondent, 16: "Take care of yourself against the negative influence of others."

A female respondent, 17: " ... The power to say no, and avoid choosing bad friends."

A male respondent, 19: "Self-care activities are divided into two categories: avoiding mental stress (not getting involved with past problems) and preventing physical illness (preventing illness)."

Based on the statements, it seemed that some participants considered self-care as equal to maintaining security or self-protection. This was especially true among younger participants, as shown in the following examples:

A female respondent, 14: "Self-care is stay away from strangers, do not travel in secluded places".

A male respondent, 15: "All activities that are said to improve the health and safety of the body against infectious diseases, such as vaccination."

Finally, the third term explained what the participants highlighted about "*respecting* and "*understanding oneself*" to reflect their point of view regarding self-care and self-care activities.

A male respondent, 16: "I think self-care means self-knowledge because if we know ourselves, we can take care of ourselves and control our actions."

A female respondent, 19: "In my opinion, self-care means that people always have red lines for themselves and respect them."

A female respondent, 20: "In my opinion, self-care means respecting ourselves and our feelings more than anything else and doing things that make us happy."

A male respondent, 20: "Recognizing and understanding our real needs and taking care of ourselves accordingly."

3.4. Suitable Self-Care Activities

When the respondents were asked to mention some of the self-care activities suitable for their age and gender (question number 3), the male and female participants highlighted about the same activities. However, with respect to most of the activities, the frequency of activities mentioned by girls and boys was different (Table 4).

As represented in Table 4, spending time in Internet/gaming/social media had the highest rate (100%) among boys' responses (Appendix A Figure A1). With largely lower frequency, "going to gym" followed at second rank, with more than 55% of respondents mentioning it, followed by "video games" and "listening to music", both with 44% as third rank. Meanwhile, "cooking-related" words (2.1%) had the lowest position among the activities performed by boys. Drinking coffee and tea (to relax) and art ranked one spot higher, both with 5.3% (Table 4 and Appendix A Figure A1).

Among female participants, compared to males, there was more scattering in the frequency/percentage of each activity. With little difference from Internet and listening to music (38.6%), fitness was the most common term among the females' answers, with 46.8% of respondents. However, compared to boys, girls were much less likely to refer to Internet/social media and gaming. These three activities were followed by reading (30.2%) and healthy nutrition-related (26.7%) expressions. On the other hand, at the bottom of the list were cooking (5.0%), watching movies (5.0%), vacation (5.4%), and meditation (6.9%) (Table 4 and Appendix A Figure A2). Overall, Internet (59.5%), listening to music (38.6%), and fitness (34.5%) ranked highest, while playing music instruments (2.7%), cooking (4.1%), and being alone (5.1%) ranked lowest. Notably, dancing was mentioned only by girls, while technical work, playing football, being alone, and playing music instruments were only found in boys' statements (Table 4 and Appendix A Figure A2).

Activities	Male		Female		Total	
Activities	Ν	(%)	Ν	(%)	Ν	(%)
Spending time/going out with friends	24	26.1%	45	22.3%	69	23.3%
Playing football	36	38.3%	0	0.0%	36	12.2%
Going to gym	52	55.3%	20	9.9%	72	24.3%
Video games	44	46.8%	18	8.9%	62	20.9%
Technical work	35	37.2%	0	0.0%	35	11.8%
Internet/social media	92	100%	78	38.6%	176	59.5%
Going on vacation	15	16.0%	11	5.4%	26	8.8%
Learning new skills	20	21.3%	35	17.3%	55	18.6%
Praying	8	8.5%	21	10.4%	29	9.8%
Cooking	2	2.1%	10	5.0%	12	4.1%
Being alone	15	16.0%	0	0.0%	15	5.1%
Listening to music	44	46.8%	80	39.6%	124	41.9%
Playing music	8	8.5%	0	0.0%	8	2.7%
Watching movies	30	31.9%	10	5.0%	40	13.5%
Drinking tea and coffee	5	5.3%	15	7.4%	20	6.8%
Healthy nutrition	17	18.1%	54	26.7%	71	24.0%
Reading	25	26.6%	61	30.2%	86	29.1%
Other sports	20	21.3%	25	12.4%	45	15.2%
Art	5	5.3%	15	7.4%	20	6.8%
Walking	8	8.5%	22	10.9%	30	10.1%
Shopping	10	10.6%	58	28.7%	68	23.0%
Dancing	0	0.0%	52	25.7%	52	17.6%
Meditation	8	8.5%	14	6.9%	22	7.4%
Sleeping	20	21.3%	20	9.9%	40	13.5%
Fitness	20	21.3%	82	40.6%	102	34.5%

Table 4. Self-care activities suitable for their age and gender (question number 3).

3.5. Self-Care Activities Regularly Performed

Furthermore, the participants were asked to mention the activities they mostly and regularly performed in their free time as self-care. The answers provided were very similar to the answers to the previous question in terms of quality and content; however, there were strong differences in the quantity of the detected words compared to the answers to the previous question (Table 5).

Analyzing the data, the boys' activities focused on a few limited activities and were then more scattered. While almost all male participants had used Internet/social mediarelated terms in their previous responses, these terms were only found in 21.3% of answers, putting it in third rank after reading (36.2%) and watching movies (23.4%). There were equal percentages of responses for fitness and video games (Figure 1 and Table 5).

There were also major changes at the end of the list. Vacation, new skills, praying, cooking, shopping, and sleep, all with 2.1%, were in the last rank position, right after technical work, being alone, walking, and meditation, with 4.3%. Moreover, in contrast to the girls, there were no drinking tea/coffee and art-related expressions in the male responses to question number 4.

There were also considerable differences between what female participants thought were suitable self-care activities for their age and gender and what they did for self-care. Ranking first, Internet was detected in 34.2% of the statements provided by girls, almost the same as the previous percentage (38.6%). Watching movies and reading ranked next, with 25.7% and 18.8%, respectively. On the other hand, video games and praying placed last, at 1%, only slightly lower than learning new skills, walking, meditation, and sleeping at 2.5% (Figure 2 and Table 5).

Activities	Ν	Male Fen		emale	Г	otal
Activities	Ν	(%)	Ν	(%)	Ν	(%)
Spending time/going out with friends	12	12.8%	22	10.9%	34	11.5%
Playing football	16	17.0%	0	0.0%	16	5.4%
Going to gym	12	12.8%	10	5.0%	22	7.4%
Video games	20	21.3%	2	1.0%	22	7.4%
Technical work	4	4.3%	0	0.0%	4	1.4%
Cyberspace/social media	20	21.3%	69	34.2%	89	30.1%
Going on vacation	2	2.1%	0	0.0%	2	0.7%
Learning new skills	2	2.1%	5	2.5%	7	2.4%
Praying	2	2.1%	2	1.0%	4	1.4%
Cooking	2	2.1%	7	3.5%	9	3.0%
Being alone	4	4.3%	0	0.0%	4	1.4%
Listening to music	8	8.5%	28	13.9%	36	12.2%
Playing music	6	6.4%	8	4.0%	14	4.7%
Watching movies	22	23.4%	52	25.7%	74	25.0%
Reading	34	36.2%	38	18.8%	72	24.3%
Painting	0	0.0%	8	4.0%	8	2.7%
Walking	4	4.3%	5	2.5%	9	3.0%
Shopping	2	2.1%	18	8.9%	20	6.8%
Dancing	0	0.0%	10	5.0%	10	3.4%
Meditation	4	4.3%	5	2.5%	9	3.0%
Sleeping	2	2.1%	5	2.5%	7	2.4%
Physical activities	20	21.3%	24	11.9%	44	14.9%

 Table 5. Self-care activities suitable for their age and gender (question number 3).

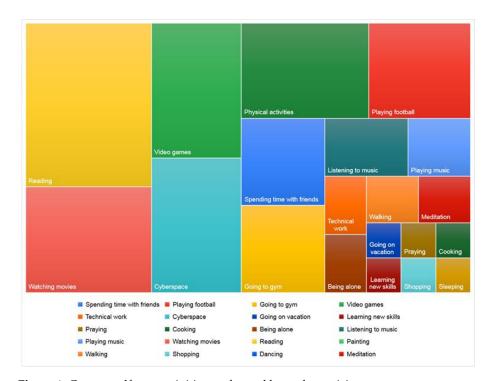


Figure 1. Current self-care activities performed by male participants.

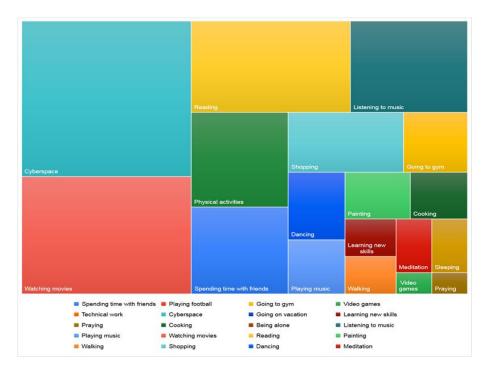


Figure 2. Current safe-care activities performed by female participants.

However, in all respondents, Internet had the highest percentage again, followed by watching movies and reading. Meanwhile, vacation (with less than 1%) and technical work, praying, and being alone (all with 1.4%) ranked at the bottom of the table (Table 5).

Finally, without mentioning self-care, the participants were asked what they preferred to do in their free time if there was absolutely no limitation. The rationale for asking this question was to know how much self-care activities were involved, regardless of constraints, in the activities that participants really wanted to do (Table 6 and Appendix A).

Table 6. Desired free time activities from participants' viewpoint.

Female		Male		
Terms	Keywords (%)	Terms	Keywords (%)	
Recreationalactivities	Going to party with friends (21.8), Cyberspace (10.4), Going to concerts/theaters (2.5), Watching movies (6.4), Music (3), Going to bars/nightclubs (4.9), spending time outside home late at night (2.5), traveling (25.2), Adventure (20.3), even more shopping (2.5), More reading (10.9)	Recreational activities	Having fun with friends (19.6), Cyberspace (14.1), Going to concerts/theaters (8.7), Watching movies (10.9), Music (6.5), Going to bars/nightclubs (2.2), traveling (26.1), Adventure (8.7), even more shopping (8.7), camping in deserts/jungles (4.3), Watching football (1.1), More reading (10.9)	
Sports activities	Outdoor physical activities (16.8), Swimming (5.9), Mountain climbing (4.5), Cycling (4.5), motorcycling (4), Football (4), Horse-riding (2.5), rallying (2), Shooting (0.5), Martial arts (3)	Sports activities	Fitness (2.2), Swimming (17.4), Mountain climbing (1.1), Football (1.1), Horse-riding (1.1), rallying (2.2), Professional/luxury gym (1.1), Water sports (4.3)	
Scientific/Educational activities	Learning professional dancing (10.9), New language (4), Musical instruments (8.9)	Scientific/Educational activities	New language (4.3), Musical instruments (4.3), Professional technical work (1.1), Computer science (4.3)	

Female		Male		
Terms	Keywords (%)	Terms	Keywords (%)	
Art activities	Painting (4.9), dancing (4), Handcrafts (1), Photography (1)	Art activities	Painting (1.1), general art (8.7)	
Other activities	Charity (9.9), Riding/driving luxury cars (1), driving cars with high speed (1), Unusual dangerous things (1)	Other activities	Riding/driving luxury cars (2.2 Charity (4.3), Even more alone (1.1), Visiting successful people the world (1.1)	

Table 6. Cont.

To summarize the findings, the keywords detected from the participants' responses were categorized under 5 main terms, including recreational activities, sports activities, art activities, scientific and educational activities, and other activities (including single activities that could not be placed under these three groups) for male and female participants (Table 6). As expected, for both males and females, some responses followed the usual leisure activities. However, there were remarkable and debatable points among the answers.

3.6. Desired Free Time Activities

In recreational activities, in both girls' and boys' statements, "traveling" was the most frequent word, followed by spending time with friends. However, "adventure", with 20.3%, was the third most widely used word among girls, compared to only 8.7% in boys. Instead of "adventure", Internet was the desired recreational activity among boys.

Among the sports activities, while the girls mostly pointed that they would like to do outdoor activities (such as running freely in parks), the boys mostly wanted to go to modern luxury swimming pools to swim. On the other hand, the girls showed a special interest in sports that are commonly known in Iran as boys' sports, such as mountain climbing, motorcycling, football, rallying, and martial arts.

Scientific/educational and art activities as well as charitable activities were the most frequent among both boys and girls (almost twice as frequent among girls as among boys). Meanwhile, the desire of one percent of girls to perform dangerous activities needs to be considered and further studied.

4. Discussion

In the healthcare system, gathering fundamental information related to perspectives, attitudes, knowledge, and/or needs is an essential systematic process to determine whether all individuals in a target group have access to relevant health services safely, effectively, and efficiently [43]. In this regard, paying attention to adolescents' needs and concerns is a vital factor in establishing an effective and evidence-based health program [21]. The current study covers subjects that have seldom been addressed by researchers in Iran. The main goal of this project was to investigate perceptions, attitudes, and challenges related to self-care among healthy Iranian adolescents to enhance their quality of life from their own point of view while considering gender differences.

The results of the current study showed more than 35% of the participants reporting that they never had heard about "self-care". This percentage indicates that a significant number of adolescents, despite accessing social networks, did not even encounter the word or ignored it. The results also showed that spending time on the Internet or in social networks was the most attractive self-care activity from the respondents' viewpoint. In this respect, the adolescents ' positive connotation of the Internet use as self-care activity differs from expert opinions having often pointed "distance from the smartphone" as an effective self-care activity [44].

Regarding the desired activities, if there were no limitations, both girls' and boys' statements indicated that among leisure activities, "traveling" was the most frequently

mentioned activity, followed by "being with friends". Girls showed more interest in attending night clubs or spending time outside the home late at night. This could be related to the gender-specific limitations and cultural traditions in Iran, which have the consequence that such activities are often not accepted or possible for girls. Perhaps for the same reason, boys pointed out that they wanted to go shopping if there were no restrictions. Meanwhile, the desire of only one percent of girls to perform dangerous activities is remarkable and may also be related to cultural norms that do not support girls in such activities.

Additionally, gender was found to affect self-care perspectives, needs, and behaviors. The findings of previous studies also highlighted the impactful role of gender in self-care and self-care activities among adolescents. However, these studies do not agree on whether there is a significant difference between the level and quality of self-care activities among boys and girls [29,30]. At the same time, cultural and social beliefs can limit and reinforce self-care behaviors. Religious and spiritual beliefs also play a decisive role, especially in more traditional areas and families [6,7].

The outcomes of this study can be used to inform intervention programs for Iranian adolescents to improve their lifestyle and, consequently, their well-being. Taking the participants' opinions on self-care activities including their definition of self-care, what they do and what they want to do into account, can be useful in designing a realistic, attractive, and effective self-care program for Iranian adolescents. Differences and similarities between the male and female participants' views as well as the specific needs of each group can help in designing a gender-specific and comprehensive program for each group. Moreover, the results of this study indicate the need of including life skills in self-care programs. It seems that in the absence of life skills, adolescents may be confused in distinguishing daily self-care activities from specific emotional activities of their age group.

The current study was a purposeful attempt cutting across disciplinary boundaries to obtain comprehensive data that are useful for several scientific disciplines, including psychology, social and behavioral sciences, health education, and health policy. However, there are a few limitations worth noting when considering our findings. Our populationbased sample is relatively small. In addition, although the data collection method made it possible to access a wide variety of populations, it was not possible to estimate the response rate. Moreover, individuals who did not have access to the Internet and social networks were excluded from the study. Therefore, the sample is not representative to all Iranian adolescents and generalizability of the findings is limited. Additionally, the questionnaire contained a limited number of questions to increase the number of respondents. These limitations should be overcome in future studies.

However, despite these limitations of this study, insights from this study identifying preferences in self-care activities can be used to develop intervention programs for and with Iranian adolescents to improve their lifestyle and, consequently, their well-being based on their needs and situation. This is a novel approach paving the pathway for the years ahead in bridging primary health care, host societies, and health care delivery.

5. Conclusions

By conducting this study, an attempt has been made to take a step towards drawing the attention of researchers and planners in the field of children and adolescents health to the importance of studying and promoting self-care among young people. Outcomes of the literature search highlight that studies on Iranian adolescents' self-care have mostly focused on adolescents with specific physical or psychological health problems [8,25–27]. The large gap between the real needs and the sporadic self-care programs for adolescents can be a significant constraint in developing practical self-care programs for Iranian adolescents [8,30]. In this study, as one of the first attempts to gather information in this area, we tried to understand how the Iranian youth "think about self-care activities" and what is their real take of the self-care concept. However, due to the shortage of analogous research in Iran, further elaboration on these results is required. The study's outcomes propose several areas for future work. As, due to time and resource constraints, the impact of some important variables such as culture, parental education, social and ethnic structures have not been studied here, those can be ideas for future studies. In addition, since the results of the study are taken from the real experiences and opinions of the participants, they can be used to more accurately plan the questions of future studies. The results of this research can be used as primary data for planning and conducting future studies and programs related to adolescent's self-care which seems necessary and inevitable according to the needs and conditions of today's world.

Due to the wide ethnic diversity in Iran, the analysis of needs and activities related to self-care, based on ethnic and cultural characteristics and differences in different regions, can be considered by researchers, especially in the design and implementation of national programs.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to the ethical considerations.

Conflicts of Interest: The authors declare no conflict of interest.

Ethical Approval: The current study is approved by the Ethics Committee for Research involving Human Subject of University Putra Malaysia (JKEUPM).

Appendix A







Figure A2. Suitable safe-care activities for female adolescents from their viewpoint.

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