Research Article

Healthcare Communication Role in the Detection of Unhealthy Behavior in University Students

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The current study aims to identify unhealthy behaviors among university students, establish means of detection of unhealthy behavior, identify obstacles to digital volunteering, and explore the relationship between volunteer preferred style of volunteering and the obstacles to volunteering. Data for the study was gathered by administering an unstructured, anonymous questionnaire to 207 female university students and staff. The survey design included questions about sociodemographic characteristics, views on different facets of volunteering, unhealthy behaviors, and correlation between volunteering and unhealthy behaviors. The results revealed unhealthy behavior detected by the respondents (51.7%). Twenty-eight (13.5%) of the 207 respondents reported using social media in detecting women with offending behavior. The value of Pearson’s R is 0.245; thus, it is considered as weak or no correlation. There is hence no correlation between how respondents preferred volunteer work and the obstacle to volunteering. There is not much difference in the obstacles to volunteering faced by respondents despite their preferred style of volunteering. The findings reveal that digital volunteering effectively gains ground in detecting and managing unhealthy behaviors among university students. Much more could be achieved through digital volunteering if more awareness is created and volunteering programs are designed to be more interesting and less time-consuming to allow more students to participate.

1. Background

The outlook of volunteering is gradually changing in the twenty-first century in manners that bring significant problems and opportunities for managing the disaster. Particularly, shifts in the pattern of paid jobs, values and lifestyles, and the latest technology have resulted in a decrease in “conventional,” high-commitment, long-term volunteering and an increase in more vast, flexible and periodic patterns of volunteering. According to [1, 2], “the commonest sources of information about healthy behaviors for university students are the media [3, 4] and social networks.” Followed by these sources of information were the World Health Organization, television, the Ministry of Health, friends, and the Internet [1, 2]. This facet reveals the significance of the Internet in conducting campaigns on health education targeted at students of higher education [3, 5], namely the various national websites [6] and international health authorities [7]. Certified announcements published by governments [2] were also part of the chief sources of information for university students.

Rising adulthood as the phase of life to which students of higher education belong matches a phase of personality development and education in the corporal, mental, family, sexual, emotional, and communal domains [8]. Nevertheless, scientific evidence shows an elevated occurrence of unhealthy behaviors among students of universities [9] who tend to persevere all through life and have a significant
enduring impact on their health and total well-being [10].
Furthermore, students of the university should be consid-
ered emerging advancement agents, hinged on the idea that
they have advantage knowledge owing to their educational
background and, as a result, possess the ability to manipulate
a population’s health. This can be exercised either via their
personal decisions, via theoretical prospective vocations,
which entail responsibilities in creating health guidelines or
decision-making procedures about them [11–13]. These
rising adults are liable for opening a variety of precautionary
options to the public based on communication of knowledge
and the implementation of preventive behaviors regarding
possible communicable diseases in this respect.

Digital volunteering offers immense potentials for di-
aster management in the aspect of disaster announcement
and challenges and risks [14, 15]. Major challenges arise
from strains between the command-control tradition in
emergency management and the very flat and autoorgan-
izing character of several digital volunteering. Research
points out that command-control configurations “do not
easily adapt to the expanding data-generating and -seeking
activities by the public” [16]. Certainly, digital volunteering
forms a prospective force for decentralizing and dispensing
influence within emergency management. It entails not
merely a shift in technology but as well a course of quick
delegation of control. With enormously few obstacles to
access, several new applicants are emerging in the fields of
emergency and disaster response [17].

Latest technologies have therefore opened up “virtual
spaces” for volunteer activism and participation that give an
authority podium for people “to make their voices heard, to
coordinate activities across the globe and to mobilize public
opinion” [18]. From the perspective of disaster, digital
volunteers are able to generate and use the virtual spaces as
podiums to manage unofficial rejoinders that may or may
not be incorporated with and corresponding to the official
emergency management system.

The enormous impact of novel communications tech-
ology is another revolution that has extensive inferences
because unofficial, postdisaster volunteering comes about,
and incontestably all disaster volunteering. The United
Nations Volunteer program states that “technological de-
velopments are opening up spaces for people to volunteer in
ways that have no parallel in history” [19]. Electronic or
digital volunteering “has eliminated the need for volun-
teerism to be tied to definite times and locations. Thus, it
greatly increases the freedom and flexibility of volunteer
engagement and complements the outreach and impact of
volunteers serving in situ” [19]. The burst in mobile tech-
nology and social media, in particular, has lowered the
information and communication impediments to partaking
in disaster response and recovery [17]. Therefore, it has
facilitated development in “digitally enabled volunteering”
due to disasters that occur both digitally and physically, or,
as is frequently the case, in interaction [20, 21]. Meier [22]
and Zook et al. [23] stated that “the trend of digital vol-
unteering, in particular, has earned noteworthy research

| Variable | Description |
|----------|-------------|
| The first axis: the importance of volunteer work from the point of view of the volunteer |
| 1 | Interested in the field of voluntary work of any kind |
| 2 | Academic specialization is important in the field of voluntary work |
| 3 | Interested in volunteering subject |
| 4 | Age is important in the field of voluntary work |
| 5 | I am aware of the concept and importance of voluntary work |
| 6 | University administration has a positive role in the development and supervision of voluntary work and supervision |
| 7 | I had the opportunity to practice voluntary work on campus |
| 8 | I am aware of the procedures used to carry out volunteer work on campus |
| 9 | There is follow-up and monitoring of volunteer work on campus |
| 10 | I have participated in several voluntary activities in the campus |
| 11 | I feel good in general about the level of organization of volunteer work on campus |
| 12 | Volunteer work had improved my communication skills |
| 13 | Voluntary work had helped me in development of interest in improving my continuous update of my knowledge in the field |
| 14 | Volunteer work improved my ability to investigate and solve new problems |
| 15 | Volunteer work developed my ability to work effectively with groups |
| 16 | Volunteer work helped me to develop basic skills in the use of technology |
| 17 | Burden of study negatively affect the voluntary work |

The second axis: the reasons for the existence of the phenomenon of offending behaviors on campus from the point of view generally volunteers |
| 18 | The lack of monitoring on campus facilitated unhealthy behavior |
| 19 | Lack of home control, education, and proper values facilitated unhealthy behavior |
| 20 | Careless attitude of parents and consider it normal behavior |
| 21 | The university officials ignorance towards abnormal behavior and considering it accepted |
| 22 | Lack of awareness and mechanisms for early detection of offending behavior in the university |
| 23 | The absence of syllabus or courses |
Table 1: Continued.

| Variable | Description |
|----------|-------------|
| 24       | The availability of free time for the student due to few credit hours. To keep up with the largest number of rich friends because the behavior is promoted and have the freedom and civilization. The lack of strict sanctions and regulations of the organization live up to the offending behavior. Non-implementation of sanctions issued and applied without sufficient application. Not transferring behaviorally to the judiciary or the law, and sufficing with internal punishment. Secrecy and opacity on the subject and not to reveal the offending behavior of the specialists or all Means of communication and docility behind their websites and advertisements facilitate the imitate the offending behavior and its implementation. Lack of awareness of the impact of the offending behavior has done later and the difficulty of their involvement in society and the difficulty of job opportunities. The lives of luxury, extravagance and wealth for some students, which they want to show to their peers. Third axis: directing volunteer efforts of the students, professors and human resources at the university for early detection of offending behavior in the university and establish a mechanism to reduce it. Activities and community service in the college are interested in volunteering and direction to reduce offending behavior. There are suitable training opportunities for the development of voluntary work to reduce offending behavior on campus. I have learned the volunteer tasks assigned to me in the field of reducing offending behavior. You have the volunteer skills necessary to perform the tasks assigned to you to reduce offending behavior. I feel good about myself if involved in reducing offending behavior. Volunteer work to reduce the offending behavior has a positive role in the university community. What I have learned in volunteer work to reduce offending behavior will be important for the future. |

| Table 1: Continued. | Variable | Description |
|----------------------|----------|-------------|
| 40                   | I have problems while volunteering on campus, especially to reduce offending behavior. |
| 41                   | The campus volunteer work hours suit me in reducing offending behavior. Ready to train in noratender volunteer incubator inside the campus is working to reduce offending behavior. |
| 42                   | Holds a national voluntary work permit. |
| 43                   | I follow noratender volunteer platform that offers volunteer opportunities. |
| 44                   | My hours for volunteer work are counted in the skill register. |
| 45                   | There are clear announcements and instructions at the university of volunteer work to reduce offending behavior. I joined the forums and workshops held by the university to spread the culture of volunteer work to reduce offending behavior. I am informed by the responsible authorities of the dates of volunteer work to reduce offending behavior in accordance with the statutory procedures. |
| 46                   | I am aware of the goals and motivations and mechanisms of volunteering to reduce offending behavior. |
| 47                   | I am aware of the most important volunteer fields and forms to reduce offending behavior. I have to know how to attract volunteers to reduce offending behavior. Faculty members cooperate with me to facilitate voluntary work tasks to reduce offending behavior. Volunteer work to reduce offending behavior finds solutions to community problems. Volunteer work to reduce offending behavior finds solutions to community problems. |
| 48                   | The fourth axis: reasons for participation and assistance mechanism to detect the offending behavior in the university.* those who actually participated. The person who carried out the offending behavior contacted strangers through social networks to help her in the implementation of the offending behavior and I discovered that. |
| 49                   | I am aware of the goals and motivations and mechanisms of volunteering to reduce offending behavior. |
| 50                   | I am aware of the most important volunteer fields and forms to reduce offending behavior. |
| 51                   | I have to know how to attract volunteers to reduce offending behavior. Faculty members cooperate with me to facilitate voluntary work tasks to reduce offending behavior. Volunteer work to reduce offending behavior finds solutions to community problems. Volunteer work to reduce offending behavior finds solutions to community problems. |
| 52                   | The fourth axis: reasons for participation and assistance mechanism to detect the offending behavior in the university.* those who actually participated. The person who carried out the offending behavior contacted strangers through social networks to help her in the implementation of the offending behavior and I discovered that. |
TABLE 1: Continued.

| Variable | Description |
|----------|-------------|
| 56       | People on and off campus helped me uncover who did the offending behavior and the methods she used to commit the offending behavior. I imitated what is shown on social networks to contribute to the detection of offending behavior. I asked for help from colleagues, specialists and security guards in order for me to participate in the detection of the offending behavior. I learned through courses, workshops, cultural clubs and extracurricular activities about the types of offending behavior and how to monitor it. My exposure to blackmail by those who do the offending behavior and the fear, irresponsibility, or distance from family and friends made it easy for me to contribute to the detection of the offending behavior. |
| 57       | My knowledge of the types of offending behavior and harm to the individual and society encouraged me to fight. Peer indifference to the matter, out of fear, irresponsibility, or distance from problems, was frustrating me on the one hand and encouraging me, on the other hand, to uncover the offending behavior and follow-up and continue doing so. |
| 58       | My ability to hide my true character on campus easy to expose students who committed offending behavior. My desire to do good and feeling safe on campus motivated me to participate and take initiative. My sense of security in terms of ease of tracking and lack of regulatory laws made it easy for me to contribute to uncovering the offending behavior. Guidance and counseling by professors, clubs, volunteers and the community service agency raised my spirits, so I made the offending behavior and detection of it my priority. |

Unhealthy behavior refers to any action an individual takes with intensity or at a rate that raises the risk of injury or disease [25]. It might sum up into a risky way of life that influences emotions, cognitive performance, and the general value of life. A great deal of the sicknesses and deaths result from individuals’ behavioral styles, polluted environment, poverty, or psychological affairs [26]. A research carried out by Poortinga established that many university students binge drink, smoke tobacco, do not eat sufficient fruits and vegetables, and do not exercise enough. The study in [27] identified five groups of behaviors that have been found consistently to associate with increased sickness and death. The list includes "low levels of physical activity and high levels of sedentary activity; eating a diet high in fat and sodium, calories, and low in nutrients; smoking cigarettes; substances abuse including alcohol, illicit and remedy drugs, and risky sexual behaviors" [28]. Latest advancements in brain research have established a precarious connection between youths and unhealthy behaviors, expounding the reality that adolescence is the significant stage of risk for both unhealthy behaviors and their outcome. Adults are less susceptible to unhealthy behavior than adolescents because the sections of the brain that control decision-making, judgment, impulse control, and emotion are not yet completely developed in adolescents. Thus, teens are more likely to take risks than adults, including engaging in dangerous behaviors and experimenting with drug abuse [29]. The chances of undertaking several unhealthy behaviors increase over the process of growth, principally during the teenage years. Through sexual risk, physical risks, and experimentation with substances, some adolescents attain unhealthy behaviors and peers that endure and dampen the cultivation of other self-regulatory attitudes. Notwithstanding efforts made towards health promotion, young adults continue to
practice high levels of unhealthy behaviors, as established by [30]. It is essential to understand unhealthy behaviors among youths, as early detection of such behaviors and their subsequent modifications can significantly improve every aspect of health and reduce the risk of chronic diseases later in life [31].

The objective of the study is to identify unhealthy behavior among university students; establish the means of detection of unhealthy behavior; identify the obstacles to volunteering; obtaining the relationship between volunteer preferred style of volunteering and the obstacles to volunteering.

2. Methods

In order to gather data for the study, an anonymous structured questionnaire was administered to both students and staff at Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. 207 validly filled questionnaires were retrieved. The respondents were all females within the age range from 18 to more than 35 years.

The questionnaire for this study was developed by the authors (Table 1). It was in the Arabic language and had never been used before.

The data was collected by using the self-administered questionnaire (Table 1). It consists of two sections as follows.

Section 1 included sociodemographic characteristics and properties of participants such as age and gender—views on different facets of volunteering, unhealthy behaviors, and correlation between volunteering and unhealthy behaviors.

Section 2 consists of four axes. The first axis aims to explore the importance of volunteer work from the point of view of the volunteer. This part of the questionnaire contains 17 questions using a Likert scale of 5 points; totally agree = 5, agree = 4, neutral = 3, disagree = 2, and totally disagree = 1. Second axis: This axis aimed to measure the reasons for the existence of the phenomenon of offending behaviors on campus from the point of view of general volunteers. It was composed of 15 questions using a Likert scale of 5 points (totally agree = 5, agree = 4, neutral = 3, disagree = 2, and totally disagree = 1). The third axis focused on directing volunteer efforts of the students, professors, and human resources at the university for early detection of offending behavior in the university and establish a mechanism to reduce it. This part of the questionnaire contains 22 questions using a Likert scale totally agree = 5, agree = 4, neutral = 3, disagree = 2, and totally disagree = 1). The fourth axis aimed to elaborate reasons for participation and assistance mechanisms to detect the offending behavior in the university. This part of the questionnaire contains 16 questions using a Likert scale totally agree = 5, agree = 4, neutral = 3, disagree = 2, and totally disagree = 1). The questionnaire has been piloted to ensure face validity and has resolved both improvements in terminology and ease of use. However, the data collected from the pilot study were not involved in the final analysis. In terms of reliability, a variety of factors have been taken into account when planning this analysis to reduce the risk to reliability. The data gathered was subjected to Statistical Package for Social Science (SPSS) 2020. Descriptive statistics were used to report the percentages for definite variables, while mean values with standard deviations were used to report continuous variables. Missing data were omitted on the basis of analysis-by-analysis and valid percentages were reported. The data was also subjected to correlation analysis to determine the relationship between the volunteer preferred style of volunteering and the obstacles to volunteering.

3. Results

The demographic characteristics of the respondents revealed ages ranging from 18 years to above 35 years. It is not surprising that the marital status of most (92.8%) of the respondents was single as the sample population comprised mainly students (Table 2).

Regarding the source of income of the respondents, most (42%) of the respondents had their source of income from university rewards; this is followed by 25.1% of the respondents whose source of personal income was from all of

### Table 2: Sociodemographic characteristics of the respondents.

| Variable                  | Frequency | Percent |
|---------------------------|-----------|---------|
| **Age**                   |           |         |
| 18 to 23 yrs              | 169       | 81.6    |
| 24 to 28 yrs              | 31        | 15.0    |
| 29 to 34 yrs              | 2         | 1.0     |
| 35 yrs and above          | 5         | 2.4     |
| Total                     | 207       | 100.0   |
| **University education level** |       |         |
| 1st year                  | 4         | 1.9     |
| 2nd year                  | 54        | 26.1    |
| 3rd year                  | 14        | 6.8     |
| 4th year                  | 16        | 7.7     |
| After 5th year            | 109       | 52.7    |
| Postgraduate              | 10        | 4.8     |
| Total                     | 207       | 100.0   |
| **Marital status**        |           |         |
| Single                    | 192       | 92.8    |
| Married                   | 14        | 6.8     |
| Divorced                  | 1         | .5      |
| Total                     | 207       | 100.0   |
| **Occupation**            |           |         |
| Student                   | 178       | 86.0    |
| Student + self-employed   | 6         | 2.9     |
| Self-employed             | 4         | 1.9     |
| Partly employed           | 19        | 9.2     |
| Total                     | 207       | 100.0   |
| **Monthly income of the family** | |         |
| Less than SR 3,000         | 36        | 17.4    |
| 3,000 to 3,499 riyals     | 22        | 10.6    |
| 3,500 to 4,900 riyals     | 11        | 5.3     |
| 5,000 to 6,499 riyals     | 4         | 1.9     |
| 6,500 to 7,999 riyals     | 6         | 2.9     |
| 8,000 to 10,000 riyals    | 19        | 9.2     |
| Above 10,000 riyals       | 67        | 32.4    |
| Undefined/unspecified     | 42        | 20.3    |
| Total                     | 207       | 100.0   |
the university rewards, parents, and grandparents. Others had their personal source of income ranging from monthly salary, husband, internship, donation and alms, business, social security, charities, and other sources as listed in Table 3.

| Source of personal income | Frequency | Percent |
|---------------------------|-----------|---------|
| No job                    | 1         | 0.5     |
| University reward         | 87        | 42.0    |
| University reward/parents/grandparents | 52    | 25.1    |
| Parents/grandparents      | 12        | 5.8     |
| Donation and alms         | 1         | 0.5     |
| Monthly salary            | 2         | 1.0     |
| Position after the university | 18   | 8.7     |
| Position after the university/university | 12 | 5.8 |
| Reward/parents/grandparents |         |         |
| Husband                   | 6         | 2.9     |
| University reward/parents/grandparents/social security | 2 | 1.0 |
| Position after the university/university | 2 | 1.0 |
| Reward/charity/social security |         |         |
| Internship                | 6         | 2.9     |
| University/social security| 2         | 1.0     |
| Position after the university/university | 1 | 0.5 |
| Reward/husband            | 1         | 0.5     |
| Position after the university/husband | 1 | 0.5 |
| University reward/business | 1        | 0.5     |
| Position after the university/charity/social security | 1 | 0.5 |
| Total                     | 207       | 100.0   |

Table 4: How do you prefer volunteering?

| Variable                        | Frequency | Percent |
|---------------------------------|-----------|---------|
| In group                        | 63        | 30.4    |
| Individual                      | 10        | 4.8     |
| Group (in hospital)             | 37        | 17.9    |
| Individual/group                 | 10        | 4.8     |
| Individual/group/electronic      | 21        | 10.1    |
| Individual/group/electronic/cafe/coffee shop | 39 | 18.8 |
| Individual/group/hospital        | 16        | 7.7     |
| Group/electronic                | 9         | 4.3     |
| Individual/electronic           | 2         | 1.0     |
| Total                           | 207       | 100.0   |

Table 5: Obstacles to volunteering.

| Obstacles to volunteering (variables) | Frequency | Percent | Cumulative percent |
|--------------------------------------|-----------|---------|--------------------|
| Lack of time                         | 101       | 48.8    | 48.8               |
| Lack of awareness and culture        | 15        | 7.2     | 56.0               |
| Lack of interest                     | 11        | 5.3     | 61.4               |
| Lack of time + weak interest         | 31        | 15.0    | 76.3               |
| Lack of time + lack of conviction    | 8         | 3.9     | 80.2               |
| Lack of time/conviction/awareness    | 16        | 7.7     | 87.9               |
| Lack of conviction/interest/time/awareness | 4 | 1.9 | 89.9 |
| Lack of time/conviction/awareness/culture/interest | 11 | 5.3 | 95.2 |
| Lack of conviction                   | 3         | 1.4     | 96.6               |
| Lack of conviction/interest/time     | 1         | 0.5     | 97.1               |
| Lack of awareness/culture/Interest   | 3         | 1.4     | 98.6               |
| Lack of time and transport           | 3         | 1.4     | 100.0              |
| Total                               | 207       | 100.0   |
With regard to the mode of volunteering, it seems that online life affected the expected voluntary behaviors. Results showed that 30% of the respondents prefer to volunteer through groups. This percentage was expected to be more, but it was less due to the online life period since students cannot meet and work in groups. The results also show that most of the respondents nowadays prefer electronic volunteering due to the limitation of gathering and outdoor activities (Table 4).

Lack of time constitutes the greatest obstacle to digital volunteering, representing almost half (48.8%) of the entire data, while lack of conviction/interest/time constitutes the least obstacle (0.5%). Other factors that hinder digital volunteering, as shown by the table, include lack of time + weak interest (15.0%), lack of awareness, and culture (7.2%) (Table 5).

University administration has a positive role in the development of volunteering work. It is also observed that volunteering positively affects university volunteers. This is seen as most of the respondents agreed that volunteering enabled them to develop enough interest to strive to continually update their information as development in the field persists. Most respondents reported enhanced communication skills; other positive roles

| Variable | Frequency | Percentage |
|----------|-----------|------------|
| University administration has a positive role in the development of volunteering work | 80 | 38.6 |
| Strongly agree | 80 | 38.6 |
| Agree | 84 | 40.6 |
| Neutral | 38 | 18.4 |
| Disagree | 3 | 1.4 |
| Strongly disagree | 2 | 1.0 |
| Total | 207 | 100.0 |
| Volunteering triggered me to update my information as development in the field | 71 | 34.3 |
| Strongly agree | 71 | 34.3 |
| Agree | 78 | 37.7 |
| Neutral | 36 | 17.4 |
| Disagree | 16 | 7.7 |
| Strongly disagree | 6 | 2.9 |
| Total | 207 | 100.0 |
| Volunteer work improved my ability to investigate and solve problems | 61 | 29.5 |
| Strongly agree | 61 | 29.5 |
| Agree | 65 | 31.4 |
| Neutral | 44 | 21.3 |
| Disagree | 29 | 14.0 |
| Strongly disagree | 8 | 3.9 |
| Total | 207 | 100.0 |
| Volunteer work improved my communication skills | 87 | 42.0 |
| Strongly agree | 87 | 42.0 |
| Agree | 74 | 35.7 |
| Neutral | 41 | 19.8 |
| Disagree | 5 | 2.4 |
| Strongly disagree | 0 | 0 |
| Total | 207 | 100.0 |
| Volunteer work helped me develop basic skills in the use of technology | 67 | 32.4 |
| Strongly agree | 67 | 32.4 |
| Agree | 84 | 40.6 |
| Neutral | 44 | 21.3 |
| Disagree | 9 | 4.3 |
| Strongly disagree | 3 | 1.4 |
| Total | 207 | 100.0 |

Table 7: Social media in detecting women with unhealthy behavior.

| Valid | Frequency | Percent | Valid percent | Cumulative percent |
|-------|-----------|---------|---------------|-------------------|
| Yes | 28 | 13.5 | 13.5 | 13.5 |
| No | 179 | 86.5 | 86.5 | 100.0 |
| Total | 207 | 100.0 | 100.0 |
Table 8: The most widely used method of communication.

| How do you prefer volunteering? | Snapchat | Twitter | Snapchat/Twitter | Twitter/Snapchat/Instagram | Twitter/Snapchat/Phone Calls/YouTube/LinkedIn/WhatsApp/Telegram | Twitter and Instagram | Browse the web | Twitter/Browse the web | Total |
|--------------------------------|----------|---------|------------------|---------------------------|----------------------------------------------------------------|----------------------|--------------|---------------------|-------|
| In group                       | 0        | 10      | 1                | 0                         | 0                                                               | 0                    | 0            | 2                   | 13    |
| Individual                     | 0        | 0       | 0                | 0                         | 1                                                               | 0                    | 0            | 0                   | 1     |
| Group (in hospital)            | 0        | 1       | 0                | 1                         | 0                                                               | 1                    | 0            | 0                   | 3     |
| Individual/group               | 0        | 0       | 1                | 0                         | 0                                                               | 0                    | 0            | 0                   | 1     |
| Individual/group/electronic/h  | 2        | 0       | 0                | 0                         | 2                                                               | 2                    | 1            | 0                   | 5     |
| Individual/group/electronic/cafe/coffee shop | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 5 |
| Total                          | 2        | 14      | 2                | 1                         | 3                                                               | 3                    | 1            | 2                   | 28    |

Figure 1: Most widely used methods of communication.

Table 9: Reasons for participation and assistance mechanism to detect the unhealthy behavior in the university.

|          | CK | CL | CM | CN | CO | CP | CR | CT | CU |
|----------|----|----|----|----|----|----|----|----|----|
| N Valid  | 164| 163| 162| 163| 164| 163| 163| 162| 163|
| Missing  | 43 | 44 | 45 | 44 | 43 | 44 | 44 | 45 | 44 |
| Mean     | 2.9329 | 3.0000 | 2.7531 | 2.8650 | 2.4695 | 2.5153 | 2.7853 | 2.4198 | 2.5276 |
| Std. deviation | 1.24896 | 1.20185 | 1.08096 | 1.12500 | .99338 | 1.07356 | 1.08720 | 1.01375 | 1.05592 |

CK = my exposure to blackmail by those who do the unhealthy behavior and my rejection of the behavior prompted me to participate in monitoring the offending behavior. CL = my ability to hack the websites and influencing others helped me to monitor unhealthy behavior. CM = advertisement and invitations in the university led me to participate in reducing unhealthy behavior. CN = my friends volunteer in reducing unhealthy behavior, encouraging me with their experiences, to experiment with monitoring the unhealthy behavior. CO = my values and principles of religion made me motivated to participate in the monitoring of unhealthy behavior for the satisfaction of God. CP = my knowledge of the types of offending behavior and harm to the individual and society encouraged me to fight. CR = peer indifference to the matter, out of fear, irresponsibility, or distance from problems, was frustrating me on the one hand and encouraging me, on the other hand, to uncover unhealthy behavior and follow-up and continue doing so. CT =gy sense of security in terms of ease of tracking and lack of regulatory laws made it easy for me to contribute to uncovering the offending behavior. CU = guidance and counseling by professors, clubs, volunteers, and the Community Service Agency raised my spirits, so I made the unhealthy behavior and detection of it my priority.
### Table 10: Unhealthy behavior detected by respondents.

| Unhealthy behaviors                                      | Frequency | Percent |
|----------------------------------------------------------|-----------|---------|
| Smoking/drug abuse                                       | 7         | 3.4     |
| Sexual abnormalities                                     | 2         | 1.0     |
| Bullying/insults/verbal abuse                            | 28        | 13.5    |
| Theft                                                    | 6         | 2.9     |
| Attack on others and properties                          | 37        | 17.9    |
| Bulling                                                  | 18        | 8.7     |
| Smoking and bullying                                     | 2         | 1.0     |
| Sexual abnormalities and bullying                        | 1         | 0.5     |
| Sexual abnormalities/extortion/bullying/insults/verbal abuse | 4   | 1.9     |
| Inappropriate disposal of waste/refuse                   | 1         | 0.5     |
| Drug abuse/wrong use of medication                       | 1         | 0.5     |
| Total                                                    | 107       | 51.7    |
| Missing System                                           | 100       | 48.3    |
| Total                                                    | 207       | 100.0   |

### Table 11: Detection of unhealthy behavior.

| Have you ever helped to detect any kind of unhealthy behavior? | Total |
|----------------------------------------------------------------|-------|
| Did not reveal                                                  |       |
| Yes                                                             |       |
| No                                                              |       |
| None                                                            | 2     |
| Princess Nourah University/Hospital/Ministry of Health          | 31    |
| Community development association                               | 11    |
| Charitable association                                          | 5     |
| Outside the university                                          | 10    |
| Both within and outside the university                          | 21    |
| Electronically                                                  | 1     |
| Total                                                           | 4     |

### Table 12: Correlation between how respondents prefer volunteer work and the obstacle to volunteering.

| Symmetric measures | Value    | Asymp. std. error | Approx. T | Approx. sig. |
|--------------------|----------|-------------------|-----------|--------------|
| Interval by interval | Pearson’s R | 0.245          | 0.057   | 3.624        | 0.000c     |
| Ordinal by ordinal | Spearman correlation | 0.231        | 0.064   | 3.405        | 0.001c     |
| N of valid cases   | 207      |                   |          |              |

*Not assuming the null hypothesis. *Using the asymptotic standard error assuming the null hypothesis. *Based on normal approximation.

### Table 13: Correlation between the four themes/axes of this study.

| Correlations | First axis | Second axis | Third axis | Fourth axis |
|--------------|------------|-------------|------------|-------------|
| Pearson correlation | 1          | 0.139*      | 0.431**    | 0.369**     |
| Sig. (2-tailed)       | 207        | 207         | 207        | 168         |
| Second axis          | Pearson correlation | 0.139*      | 1          | 0.279**     | 0.258**     |
| Sig. (2-tailed)       | 207        | 207         | 207        | 168         |
| Third axis           | Pearson correlation | 0.431**     | 0.279**    | 1           | 0.665**     |
| Sig. (2-tailed)       | 207        | 207         | 207        | 168         |
| Fourth axis          | Pearson correlation | 0.369**     | 0.258**    | 0.665**     | 1           |
| Sig. (2-tailed)       | 168        | 168         | 168        | 168         |

*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).
include improved ability to tackle problems and development of basic skills in the use of technology, as shown in Table 6.

From Table 7, only 28 (13.5%) of the 207 respondents reported using social media in detecting women with offending behavior.

When considering the most widely used methods of communication, Twitter is the most widely used method of communication as 50% (14) of the respondents (28) make use of it. This was followed by both Twitter and Instagram and Twitter, Snapchat, Phone calls, YouTube, LinkedIn, WhatsApp, and Telegram, which were utilized by 3 (1.4%) of the respondents each. 2 (1%) of the respondents use Snapchat as a medium of communication, another 2 (%) of them utilize Twitter coupled with surfing the web; 1 (0.5%) of the respondents browse the web only as a means of communication (Table 8 and Figure 1).

Table 9 shows the mean and standard deviation of reasons for participation and assistance mechanism to detect unhealthy behavior in the university.

Table 10 shows that 37 (17.9%) of the respondents indicated that Attack on Others and Properties is the most prevalent unhealthy behavior found among university students; this is followed by bullying/insults/verbal abuse and bullying (13.5%) and (8.7%), respectively.

Most of the respondents (70) who do volunteer work do it in the Princess Nora University and have revealed to have helped detect unhealthy behavior among women. Others carry out their volunteering work at Community development association (11), charitable association (5), outside the university (10), and both within and outside the university (21); the only respondent who carries out volunteer work electronically has not helped to detect any kind of unhealthy behavior (Table 11).

As shown in Table 12, the value of Pearson’s R is 0.245; thus, it is considered a weak or no correlation. There is hence no correlation between how respondents preferred volunteer work and the obstacle to volunteering. There is not much difference in the obstacles to volunteering faced by respondents despite their preferred style of volunteering.

With regard to the correlation between the four themes/axes of this study, we have the following. The first axis: the importance of volunteer work from the point of view of the volunteer; the second axis: the reasons for the existence of the phenomenon of offending behaviors on campus from the point of view generally volunteers; third axis: directing Volunteer efforts of the students, professors, and human resources at the university for early detection of offending behavior in the university and establish a mechanism to reduce it; the fourth axis: reasons for participation and assistance mechanism to detect the offending behavior in the university by those who actually participated.

From Table 13, the correlation between the first and second axis is 0.139 indicating a weak relationship between the importance of volunteer work from the point of view of the volunteer and the reasons for the existence of the phenomenon of offending behaviors on campus from the point of view generally volunteers. The Sig. (2-tailed) is 0.045, indicating that there is no statistically significant correlation between the two variables. The correlation between the first and third axis and the first and fourth axis is 0.431 and 0.369, respectively, also indicating that there is no correlation between each pair of variables. Of all the variable pairs represented in the above table, there is only a moderate correlation between the third and fourth axis, thus indicating that there is a relationship between the two variables.

4. Discussion

This study was of clearly stated objectives. The features of the respondents were well represented; randomized sampling was also utilized; since the sample profile is composed of students, this enables easy access and low cost for data collection. On the other hand, a limited number of previous studies related to this topic was reported.

As comparing this study with other previously reported studies, the results of this study showed that youth and young adults form a greater part of volunteering. This is not surprising as the Arab News reported that “the majority of Saudi youth would be more than willing to get involved in volunteer work, according to a survey” [32]. Volunteer work span across all work ages, university education level, occupation, and marital status. It is revealed that most volunteers prefer volunteering in groups.

Contrary to Sills’ classic study on volunteering [33], people not only engage in volunteer work for altruistic motives only but also for other beneficial rewards such as learning new skills and self-development among others [34]. A major obstacle to volunteering is the lack of time (48.8%). Of the unhealthy behavior revealed in this study, attacks on others and properties were the most frequent (17.9%). This was followed by bullying, insults, and verbal abuse (13.5%). Bullying is obviously among the top list of unhealthy behavior as it takes several forms [35, 36], from cyber-bullying to face-to-face bullying, insults, and verbal abuses.

On a global scale, there is rising anticipation that volunteers will cover a bigger responsibility in disaster management and disaster risk diminution in time to come than it has in the past. This is propelled by an increasing global focus on creating “resilience to disasters through a “bottom-up” process in the form of volunteer initiatives rooted in the community” [19]. Lately, this focus was reemphasized in the 2015–2030 Sendai agenda for Disaster Risk Reduction, arrogated by the United Nation’s March 2015 General Assembly [37]. The guideline demanded that “responsibilities be shared” covering all stakeholders and sectors of society and vociferares “an all-of-society engagement and partnership.” Also, it renders an extensive catalog of proceedings for “civil society, volunteers, organized voluntary work organizations and community-based organizations” that states should encourage.

Nevertheless, the outlook of volunteering is gradually shifting in the twenty-first century in manners that bring significant problems and chances for disaster management. Particularly, shifts in the pattern of paid jobs, values, and lifestyles, and the latest technology has resulted in a reduction...
in “traditional,” time-consuming, high dedication volunteering and an increase in more vast, flexible and periodic patterns of volunteering [38]. Considerably, “volunteer strategies in the emergency management sector still depend profoundly on the customary model of volunteering” [39, 40].

Volunteering definitions are changing, alongside the act of volunteering [41, 42]. In Australia, the highest national body lately arrogated a more comprehensive definition: “Volunteering is time willingly given for the common good and without financial gain” [43, 44]. The recent definition cuts across a greatly wider array of budding and less conventional kinds of volunteering juxtaposed to the past, including unofficial and periodic volunteering, group volunteering where a member of staff time is contributed, electronic or online volunteering, and activism. This kind of shift towards more general knowledge of what makes up volunteering in the contemporary perspective is accompanied by the likelihood of higher acknowledgment, legitimacy, and protection for the greater variety of volunteering that has constantly taken place in disaster situations. However, greater recognition also brings the prospective for more government mediation, which stressed has tendency to influence the drives and developing behaviors that inspire unofficial volunteering negatively [42]. Results of the study were manifested earlier in a Research Square, preprint document [45], showing that the majority of Saudi youth are more willing to be involved in volunteer work.

5. Conclusions

The findings reveal that digital volunteering is effectively gaining ground in the detection and management of unhealthy behaviors among university students. Much more could be achieved through digital volunteering if more awareness is created and volunteering programs are designed to be more interesting and less time-consuming to allow more students to participate. Based on these facts, this study hereby makes the following recommendations: more opportunities should be given to students to participate in volunteering work. There should be proper awareness and orientation about new and existing volunteering work. Students should be encouraged to participate in digital volunteering. Students should be afforded opportunities to volunteer outside the university and access the diversity of volunteer opportunities. There should be partnerships among the university, institutions, and volunteer associations, which will give another character to female students and develop extracurricular thinking skills for female volunteers, as there are specializations that pay more attention to this aspect, as is the case in the disciplines of social service, psychology and others. Volunteer programs should be designed to be less time-consuming and more interesting to students while serving the purpose for which there were created.

Data Availability

Any raw data or materials used in the preparation of this manuscript are available upon reasonable request to Dr. Samar Alshawwa (szalshawwa@pnu.edu.sa).

Ethical Approval

Ethical approval was obtained for this study from the International Review Board (IRB) in Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia, with IRB Log Number 20-0113. The IRB has determined that the proposed project poses no more than minimal risk to the participants. Therefore, the proposal has been deemed exempt from IRB review.

Consent

Participants were informed that all the information derived from the research tool “the questionnaire” will be dealt with in the strictest confidence and will only be used for scientific research purposes only. Anonymity and confidentiality were explained to participants. Participants were identified with codes to ensure anonymity. Questions that could cause any form of psychological trauma on participants were avoided.

Disclosure

AA is the primary author of the manuscript. An earlier preprint preliminary version of this manuscript has been presented in Research Square according to the following link: https://www.researchsquare.com/article/rs-729709/v1 [45].

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Authors’ Contributions

All authors were responsible for the initiation, conceptualization, and leadership of the guideline development process. AA and SA were responsible for the respondent’s survey. RA and SA were responsible for the data statistical analysis and interpretation of results. All coauthors were responsible for writing, reviewing, and revising the manuscript for important intellectual content. All authors read and approved the final manuscript, participated in the study and questioner design, data analysis, drafted the manuscript, and approved it before submission.

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