

Digital communication and practical physical and sports maintenance activities in the city of Ouagadougou

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ABSTRACT: The communication strategy to increase the practice of Physical Activities and Sports (PAS) within the population remains topical in public development policies. It is on the strength of this observation that the ministerial department in charge of sports has entered into a partnership with the mobile telephone operator TELECEL Faso for the sending of the «Short Message System» of invitation to practice. The general objective of this article is to analyze the effect of SMS on the regular practice of physical and sports maintenance activities by the population in the city of Ouagadougou. The data was collected using a quantitative approach from 299 practitioners. The results obtained reveal that the SMS of TELECEL Faso do not have an effect on the regularity of the practice of APS in the city of Ouagadougou. All of the actors questioned are part of the perspective of improving the quality and quantity of SMS with diversification of the source of distribution. This study helps inform decision-makers on the strategies to be optimized with a view to generalizing the practice of sport.

KEYWORDS: Digital communication, SMS, Sport for all, physical activities, maintenance sports.

1 INTRODUCTION

According to the World Health Organization (WHO), it is estimated, worldwide, that lack of physical activity causes more than 3.2 million deaths per year (Margaritis, 2016; WHO, 2013). Physical inactivity appears to be the fourth major risk factor for mortality representing more than 20% of cases of diabetes, cancer and cardiovascular problems (WHO, 2010). The WHO recommends 150 minutes of Aerobic Physical Activity (APA) per week for people aged 18 to 64 and at least 60 minutes of daily activity for those aged 5 to 17 (WHO, 2013). Regular physical activity is good for your health. Indeed, it generates a decrease of about 30% in the risk of heart diseases such as high blood pressure or stroke, type 2 diabetes, breast and colon cancer, osteoporosis (Warburton et al. 2010). In addition, it reduces the severity of mild symptoms related to depression and anxiety (Rimer et al., 2012; Warburton et al. 2007).

However, Fanning, Mullen and McAuley, (2012) argue that less than 25% of adults and 40% of children and adolescents meet WHO recommendations worldwide. The scientific community and public services are looking for the best strategies to encourage people to be more active (Margaritis, 2016).

Also, in order to raise public awareness of the importance of practicing regular physical and sporting activity, television and poster campaigns have been put in place by the public authorities, but these seem insufficient. Indeed, the interest of adolescents and the elderly for digital tools is well established. This is why the use of "shorts Messages Systems" (SMS) makes it possible to increase the number of physical activity practitioners (Robin, Laurent and Ruart, 2018).

Texting, as a health promotion tool, has therefore become the primary technique used in mHealth research (Morton, McGlory, & Phillips, 2015). This technique is based on the idea that, for marketing strategies, it is possible to encourage individuals to change their behavior through the sending of SMS (Cole-Lewis and Kershaw, (2010). The effectiveness of sending SMS to promote physical activity has been demonstrated in several studies (Fanning et al., 2012) and this strategy gives positive feedback (Gerber et al., 2009).

In addition, some studies such as (Muller, Khoo, and Morris, 2016; Robin et al., 2017), have shown that texting increases the duration of self-reported Aerobic Physical Activity (APA), measured and reported by the participants themselves, in adults and people over 50 years of age. In a review of 14 health behavior change interventions that were delivered via mobile phone short message service (SMS) text, Fjeldsoe et al. (2010), observed significant positive behavioral changes in 8 studies, and another 5 studies demonstrated positive behavioral trends using SMS as a reminder to increase adherence to treatment programs.

In Burkina Faso, the practice of physical and sporting activities for health has been a government concern since 1984. It took the form of the establishment of compulsory mass sport in the public administration, then the later creation of the Department of Sport pour Tous (DST) at the ministry in charge of sports in 2006. Thus, since its official launch on March 22, 2012, the DST, responsible for promoting the practice of maintenance sport in the Burkinabè population in general, has established a partnership with TELECEL Faso for the dissemination of messages (SMS) every last Thursday of the month, inviting the population to practice sport and participate in aerobic sessions. The content of the first SMS was entitled "Sport for all: Thursday June 27, 2013. "Participate in the big aerobics' session on Thursday June 27 at 4 p.m. at the Place de la Nation. For your health, move. »

Despite the efforts made by the department in charge of sport to make the practice of sport more effective and more dynamic for all, although many receive the SMS, it is clear that the number of practitioners remains below expectations. In addition to this low mobilization of the practice, the regularity of those who practice is also a problem.

Also, no scientific study to our knowledge reflects the real effect of SMS on the level of practice of physical activity and sports maintenance in Burkina Faso. The objective of this research is to analyze the contribution of the strategy of sending SMS on the regularity in the practice of maintenance APS within the population of the city of Ouagadougou.

2 METHODS

2.1 NATURE AND STUDY POPULATION

This is a quantitative cross-sectional study. It was carried out in the city of Ouagadougou among practitioners of physical and sports maintenance activities.

2.2 SAMPLING AND STUDY SAMPLE

Considering the non-existence of an exhaustive sampling base of physical and sporting activity practitioners in the city of Ouagadougou, we resorted within the framework of this study to a non-probability type sampling. According to data from the STEPS survey (2013), the prevalence rate of physical activity in urban areas is 22.2%. Data from the RGPH (2019) regarding the size of the population of Ouagadougou is estimated at 536,190 people. Referring to the Schwartz formula, the minimum sample size for our study is 295 subjects.

2.3 DATA COLLECTION TECHNIQUES AND TOOLS

The survey was used as a technique in our study. The choice of the survey technique is explained by the fact that it is based on an organic set of questions structured according to a rigorous order falling within a logical progression (Thietart et al., 2004). The questionnaire served as a collection tool. Also, this instrument was the subject of a pre-test with a small number of the study population.

The pre-test made it possible to test the form of the questions, their sequencing and their comprehension as well as the relevance of the proposed response methods.

2.4 DATA PROCESSING AND STUDY VARIABLES

The “Sphinx plus2” software was used to process the collected data. Descriptive statistics such as means and frequencies were performed. The chi2 test was used to determine the associated factors. The significance level of the tests was set at $p \leq 0.05$.

2.5 VARIABLES

The regular practice of maintenance physical and sports activity is the dependent variable. The independent variables retained are: the reception of SMS, the frequency of SMS reception and satisfaction with the content of the SMS.

3 RESULTS

Table 1. Frequency of receipt, satisfaction and quality of SMS

Variables	Terms	Percentage
SMS reception frequency	Each day	6,7
	Each week	14,3
	Last Thursday	79
	Total	100
Satisfaction or not with the content of the messages received	Yes	71,2%.
	No	28,8%.
	Total	100%.
SMS quality in terms of motivation	Yes	28
	No	72
	Total	100
Quality of SMS inviting personal investment	Yes	53,8
	No	46,2
	Total	100

In view of Table 1, more than the majority (79%) of respondents claim to have received the SMS every last Thursday of the month. Only 28% believe the message is motivating. In addition, only 46.2% of respondents indicate that SMS invites personal investment.

Table 2. Relationship between frequency of practice of APS and receipt of practice SMS, frequency of receipt of SMS and satisfaction with SMS content

	Regularity of practice		
	Value	Asymptotic significance	Conclusion
SMS reception	0,101	0,751	Not significant
SMS reception frequency	0,729	0,393	Not significant
SMS content satisfaction	0,127	0,722	Not significant

Significant at $p < 0.05$

With regard to Table 2, concerning the Chi-square (χ^2) interdependence test, no significant dependence was observed between the frequency of the practice and the variables receiving SMS, frequency of receiving and satisfaction with the content of the SMS.

Table 3. Respondents' suggestions for improving SMS content

Variables	Terms	Percentage
Improve SMS content	Yes	28%
	No	72%
	Total	100%
Strategies for improving SMS content	Broadcast the SMS in all operators	42,8%
	SMS according to target groups	30.2%
	SMS more motivating	28%
	Total	100%

In view of table 3; 72% of practitioners are in favor of improving the content of SMS. As for the strategy, 42.8% indicate that the SMS should be distributed to all operators, 30.2% suggest that the SMS be based on the target groups. And finally, 28% want more motivating SMS.

4 DISCUSSION

The purpose of this study is to determine the effect of invitations to the practice of physical and sports maintenance activities via SMS from TELECEL Faso to its subscribers on the frequency of practitioners in the city of Ouagadougou.

The results show that 79% of those surveyed claim to have received the SMS every last Thursday of the month, inviting them to practice sport for all. These results confirm those of (Berry, Latimer-Cheung, 2013) according to which messages promoting physical activity are part of a global approach aimed at creating a society in which physical activity is the norm.

The results indicate however that the reception of the sms has no effect on the regular practice of APS in the city of Ouagadougou, $P=0.751$. It is the same as SMS frequency ($P=0.393$) and SMS content satisfaction ($P=0.722$). These results are consistent with those of Olson and Zanna (1987). They point out the reasons why mass media messages and campaigns about various healthy behaviors, including increasing physical activity, have not been very successful in persuading people to take action. A big problem for them is that messages tend to be general because they are assumed to be meaningful to everyone or, if they are targeted at a particular group, they tend to assume the audience is homogeneous; that is, receptive to the message. Olson and Zanna (1987) suggest that messages may be more successful if they have a theoretical basis, if they are strategically persuasive to a particular audience, if the information specifies how to do it, and if the individuals targeted have the opportunity to take appropriate action after delivering the message.

Conversely, Parker and Ellis (2016) argue that email messages delivered via mobile phones are effective in increasing aerobic PA minutes in older adults. These authors argue that physicians, physical therapists and personal trainers can integrate mobile technology into their practice by using cell phones to provide reminders, information and even instructions for patients and clients. Robin, Laurent and Ruart (2018) obtained similar results to Antoine Parker and Ellis (2016). Indeed, their studies have shown that receiving an SMS in the morning (6 times a week for 3 weeks), inviting you to perform an APA, significantly increases the average weekly duration of APA (leisure). In addition, an improvement in the times of completion of the 3 x 400 meters is observed while being higher when the pupils receive the morning SMS than when they have not received it. The use of SMS is therefore an effective strategy for making students more active. The results indicate that more than half of respondents (71.2%) suggest that the quality of SMS should be improved. In practical ways they suggest:

- That the distribution of the SMS is made by all the operators instead of a single one and even on the social networks (whatsapp, Facebook);
- That the SMS are according to age groups; that is to say according to the specific needs of practitioners;
- That text messages are more motivating

The results corroborate in terms of proposed strategies those of Garrigues (2015) with the addition of the method How? Who? When? and why? regarding communication via email. First, the How refers to solutions for optimizing the digital communication medium.

By this we mean the technical means of disseminating the message. In the Burkinabè context, it is a question of using new mobile media such as the mobile / Smartphone, tablets, television and connected watches.

Then the "Who" concerns the target. The target chosen during the implementation of the communication strategy is similar to the one who actually accesses the message. Targeting includes defining a group in the population according to a common

characteristic and providing information according to the characteristics of the subgroup. The concept is analogous to marketing to segments of a population (Randolph and Viswanath 2004). For Jibaja Weiss et al. (2005) personalized messages are effective in promoting breast and cervical cancer screening tests in underserved populations. A message tailored to the person gives them the impression that they are more important, encourages them to process information and change their behavior more than a targeted message (Marcus and Rosen 2006).

In addition, the "how much" concerns the number of publications to be filled in order to be read and seen without being too repetitive. For the "When to spread the message?", it is a question of saying when to broadcast, in particular the days and hours. Finally, the question "why" allows us to deepen the content of the message and its necessity.

5 CONCLUSION

Digital communication in the world of sport no longer needs to be demonstrated, in this case SMS and its effects on the practice of APS. In Burkina Faso, with the increase in non-communicable diseases linked to a sedentary lifestyle or lifestyle, the department in charge of sports with its partner TELECEL Faso, a mobile phone agency, have initiated the sending of SMS invitations to practitioners of maintenance sports in the city of Ouagadougou. The objective of this study is to determine the effect of the communication policy via the sending of SMS on the regular practice of SPA within the population of the city of Ouagadougou. To carry out this study, a questionnaire was developed and administered to 299 practitioners in the city of Ouagadougou by the non-probabilistic method. The results obtained reveal that the SMS of TELECEL Faso have no effect on the regularity of the practice of APS in the city of Ouagadougou. All of the actors questioned are part of the perspective of improving the quality and quantity of SMS with diversification of the source of distribution. This study helps inform decision-makers on the population's expectations in terms of communication on the practice of sport for all in the context of the development and implementation of sports policies.

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