



Anna Tubek, Mariusz Duplaga

Department of Health Promotion, Institute of Public Health, Faculty of Health Sciences
Jagiellonian University Medical College, Krakow, Poland

THE ASSESSMENT OF FUNCTIONALITIES OF MOBILE APPLICATIONS SUPPORTING PHYSICAL ACTIVITY

Background. Mobile applications are perceived as a promising form of supporting beneficial health behaviours. Solutions supporting physical activity remain one of the key areas of development in m-health. The main objective of the study was to assess functionalities of mobile applications supporting physical activity that are the most popular in Poland. **Material and methods.** The first 100 applications listed in the category of 'Health and fitness' of the 'Best apps' ranking in the Google Play online store were screened. From that list, 8 applications fulfilling the inclusion criteria were selected for analysis. **Results.** The reminders about training or established objectives was the most common functionality available in the analysed applications (88%, 7 out of 8 applications). Functionalities available in 5 out of 8 applications (63%) included a workout diary, sharing achievements with friends, and an option of verbal instructions during exercises. Two main categories of sports applications can be distinguished on the basis of the performed analysis: applications for monitoring and analysing physical activity (50%, $n = 4$) and applications providing instructional materials to support self-training. **Conclusions.** Mobile applications supporting physical activity are an important new tool for implementing health promotion interventions. Sports applications can contribute to maintaining trainings.

Key words: sport, health promotion, smartphones, m-health

INTRODUCTION

Physical activity is one of the essential factors influencing human health. It plays a key role in preventing many chronic disorders (Centers for Disease Control and Prevention, 2015). According to the World Health Organization (WHO), physical activity is any body movement produced by skeletal muscles resulting in energy expenditure. This definition refers also to activities undertaken during working, playing, carrying out household chores, travelling, and engaging in recreational activities (World Health Organization [WHO], 2017). It is estimated that abstaining from physical activity contributes to over 3 million deaths worldwide annually, so it can be considered as the fourth leading cause

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Adres do korespondencji: Anna Tubek, Zakład Promocji Zdrowia, Instytut Zdrowia Publicznego, Wydział Nauk o Zdrowiu, Uniwersytet Jagielloński Collegium Medicum, ul. Grzegórzecka 20, 31-531 Kraków, e-mail: tubek.anna@gmail.com

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for death (WHO, 2009, 2010). Promoting physical activity, which is a modifiable factor, is perceived as one of the key public health challenges.

Mobile applications are seen as a valid option among interventions aimed at the change of health behaviours (Dennison, Morrison, Conway, & Yardley, 2013). This results in their growing use in healthcare and public health. The area is now referred to as m-health (Briggs, Adams, Fallahkhair, Iluyemi, & Prytherch, 2012). The accessibility of the applications, their portability, and growing technical possibilities add to treating them as an individual form of support. The personal nature of mobile solutions contributes to their superiority to other information and communication technologies (ICTs) implemented in healthcare and public health (Free et al., 2010, 2013). Smartphones are the most popular type of mobile devices. It is estimated that up to 43% of modern citizens use this type of device (Pew Research Center, 2016). With the development of the smartphone market, mobile applications (commonly called 'apps') began their expansion. Currently, numerous health-oriented applications, including those supporting physical activity and lifestyle management, are available. Monitoring health parameters is their important functionality. Additionally, they can be offered to broad audiences and thus play an essential role in achieving public health goals (Hebden, Cook, van der Ploeg, & Allman-Farinelli, 2012; King et al., 2016; Kratzke & Cox, 2012). It is anticipated that by the end of 2017, even half of smartphone owners will be using some type of health application (Czerwińska, 2015). According to 'mHealth App Developer Economics 2016,' by 2020, the number of people who use a mobile health application at least once a month will have reached 551 million (Research 2 Guidance, 2016).

The growing number of smartphone users suggests that mobile health applications will be an increasingly important tool feasible for maintaining health and fitness (Higgins, 2016). This also adds to the high interest in supporting physical activity with the use of mobile technology.

OBJECTIVE

The purpose of the study was to assess the functionalities of the most popular mobile applications supporting physical activity available for Polish-speaking users. Furthermore, the study aimed at the evaluation of their ease of use and popularity.

MATERIAL AND METHODS

Selection of mobile applications

The analysis covered mobile applications available free on the Google Play store. They can be installed on devices running Android, currently the most popular mobile operating system in Poland (Mikowska, 2015). The first 100 applications listed in the 'Health and fitness' category of the 'Best apps' ranking (status on May 20, 2017), according to the classification provided in the Google Play store, were screened. This process was based on descriptions and screenshots of applications provided by Google Play. Applications that did not support physical activities were excluded from the analysis. Applications simultaneously supporting areas other than physical activity and sport were also

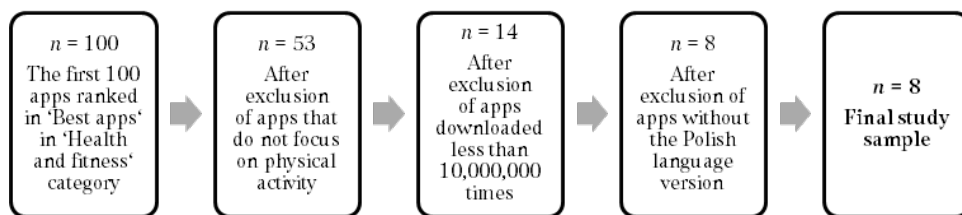


Fig. 1. Selection process of mobile applications supporting physical activity

excluded. Only applications with at least 10 million downloads were included in the study. As a result, 14 applications were qualified for further analysis. These were installed on a smartphone used for testing purposes. Out of the 14 applications, only 8 were available in the Polish version. These were included in the final analysis. The process of selection is shown in Figure 1.

Criteria for evaluating mobile applications

After reviewing the functionalities provided by the applications selected for evaluation, a list of 15 shared functionalities was created. Apart from the analysis of the provided functionalities, a general assessment of the application and its ease of use was performed. The general assessment covered the following features: the need for Internet connection, options for registration, and the customization of the application. Furthermore, the location in the Google Play's 'Best apps' ranking, average user ratings, number of opinions, and categories of the number of installations were considered. The analysis of the trends in the number of users' opinions was based on daily 2-month observation.

RESULTS

Characteristics of applications

The characteristics of applications supporting physical activity included in the analysis are shown in Table 1. The order of the application corresponds to the places in the 'Best apps' ranking, available in the Google Play store. Applications included in the study can be divided into 2 groups: those that enable monitoring and analysing various types of physical activity and those that provide sets of exercises with instructions for daily individual training.

Functionality of applications

Reminders of training or assumed goals turned out the most common functionality among the applications supporting physical activity and sport. It was available in as many as 7 out of 8 applications. Five of the 8 applications provided the following functionalities: voice instructions, a workout diary, statistics and reports, and an option for sharing achievements with friends. Only one application (Samsung Health) provided access to health information in the form of links to articles available on web pages.

Tab. 1. Characteristics of applications supporting physical activity included in the analysis

No.	Application name	Description
1	Endomondo – Running & Bike (in Polish available as <i>Endomondo – Bieganie & Rower</i>)	One of the most popular applications, allowing to monitor and record sports activities (duration, speed, distance, burned calories). It offers an analysis of progress in training, recording of routes, and publication of the achieved results in social media
2	30-day Fitness Challenge (in Polish available as <i>30-dniowe Wyzwanie Fitness</i>)	This application was considered the best in Google Play store in 2016. It contains sets of exercises developed by professional trainers and designed for the development of various parts of the body. According to Google Play, this is the best self-development app
3	Samsung Health	Application supporting healthy lifestyle by analysing daily activities, e.g. the number of steps. It allows for monitoring different types of physical exercises. It was initially available only for Samsung devices, but owing to high popularity, it was offered to other devices through Google Play store
4	Runtastic Running and Fitness (in Polish available as <i>Runtastic Bieganie i Fitness</i>)	The application was developed to monitor running. It records duration, speed, distance, routes, burned calories, and other parameters. It also enables to track other physical activities and share achievements with friends
5	Aerobic Weider's 6 A6W (in Polish available as <i>Aerobiczna Szóstka Weidera A6W</i>)	It is a Polish application supporting popular exercises of the abdominal muscles called the Weider Aerobic Six. It includes a workout schedule and allows for monitoring effects
6	Google Fit	The application allows for recording and analysing daily activities. It monitors duration of activities, distance, burned calories, and number of steps
7	Daily Exercises Free (in Polish available as <i>Codzienne Ćwiczenia Darmowa</i>)	It proposes series of daily exercises for men and women. It contains a set of daily exercises for the whole body or selected body parts; the exercises are presented by a professional personal trainer
8	7 Minute Workout (in Polish available as <i>7-Minutowe Ćwiczenia</i>)	Recommended by Google Play store. The application was ranked first in 19 countries in the category of health-promoting applications. It offers instructions on 7-minute sets of exercises for different body parts for self-control at home

The highest number of functionalities distinguished on the basis of the analysis was provided by the Runtastic Running and Fitness application. It offered 9 out of 15 functionalities. Three other applications: Endomondo – Running & Bike, 30-day Fitness Challenge, and 7 Minute Workout offered 8 functionalities each. The Daily Exercises Free application provided only 3 of the 15 functionalities.

A summary of the functionalities provided by the analysed applications is shown in Table 2.

Tab. 2. Functionalities available in the analysed applications

Functionality	Mobile applications* providing the functionality	Total number of applications providing the functionality
Reminder/notification option, e.g. about training, set target	2, 3, 4, 5, 6, 7, 8	7
Workout diary/history	1, 4, 5, 6, 8	5
Compiling statistics/trends/reports	1, 2, 3, 4, 5	5
Voice instruction option, voice trainer	1, 2, 4, 5, 8	5
Sharing information (e.g. about the achieved results)	1, 2, 3, 4, 8	5
Access to exercise sets + recording (visualization of exercise)	2, 5, 7, 8	4
Tracking different activity parameters: distance, burned calories, time, heart rate	1, 3, 4, 6	4
Setting goals	1, 3, 4, 6	4
Synchronization with other applications	1, 2, 4, 8	4
Access to instructional exercises (description of exercise)	2, 5, 8	3
Selecting the level/type of training	2, 3, 5	3
Connection with GPS	1, 4, 6	3
Synchronization with other devices	3, 4, 6	3
Adjusting the exercise time and/or breaks	7, 8	2
Access to health information (links to articles)	3	1

* The application numbers correspond with those in Table 1.

General functionality

Five out of 8 applications could be used without Internet access. In 2 other cases, lack of Internet access limited the number of functionalities. Only 1 application (Endomondo – Running & Bike) required constant Internet access. Three applications demanded registration with an e-mail address, later used as a login, or via a social networking site. For other applications, registration was not necessary. All the analysed applications offered customization based on gender, age, and body weight. Information on Internet requirements, registration procedures, and customization of the applications included in the analysis is provided in Table 3.

Indicators of the popularity of applications

Three out of the 8 analysed applications were among the top 10 of the ‘Best Apps’ ranking in the ‘Health and fitness’ category. Other applications were classified on further places in the first 60. The average user rating for the applications equalled 3.9–4.8 (with the highest possible rating of 5.0). The 30-day Fitness Challenge application achieved the highest rating – 4.8. Only 1 app, Google Fit, received an average rating below 4.0 (3.9).

The Samsung Health application was the most popular in terms of the number of installations (range: 100,000,000–500,000,000 installations). Other applications were in the installation range of 10,000,000–50,000,000. The Runtastic Running and Fitness application was the most popular with regard to the number of user opinions (710,293 opinions). The lowest number of opinions was received by the Daily Exercises Free ap-

Tab. 3. Characteristics of mobile applications in terms of user requirements and customization

Application name	Internet connection required	Necessity of registration	Customization
Endomondo – Running & Bike	yes	yes	yes
30-day Fitness Challenge	no	no	yes
Samsung Health	no	no	yes/no
Runtastic Running and Fitness	no/yes	yes	yes
Aerobic Weider's 6 A6W	no	no	yes
Google Fit	no	yes	yes
Daily Exercises Free	no	no	yes
7 Minute Workout	no/yes	no	yes

Tab. 4. Mobile application characteristics in terms of ranking, average user rating, number of opinions and installation range

Application name	Place in the ranking	Average user rating	Number of opinions	Installation range*
Endomondo – Running & Bike	1	4.5	439,970	10,000,000–50,000,000
30-day Fitness Challenge	4	4.8	280,600	10,000,000–50,000,000
Samsung Health	9	4.2	289,844	100,000,000–500,000,000
Runtastic Running and Fitness	14	4.5	710,293	10,000,000–50,000,000
Aerobic Weider's 6 A6W	22	4.2	333,197	10,000,000–50,000,000
Google Fit	24	3.9	220,286	10,000,000–50,000,000
Daily Exercises Free	53	4.4	125,646	10,000,000–50,000,000
7 Minute Workout	55	4.5	369,451	10,000,000–50,000,000

* Installation range for applications irrespective of language versions (data for language versions were not available)

plication (125,646 opinions). It is worth pointing out that the application that was downloaded most frequently (Samsung Health) was ranked fifth as for the number of opinions. It should be also added that all applications were available in several languages.

The ranking, the average user rating, the number of opinions, and the installation range of the analysed applications are summarized in Table 4.

The engagement of users in providing opinions about applications supporting physical activity was strongly diversified. The number of opinions spanned from 100,000 to 750,000. However, there was an increase observed of the number of opinions for all applications. The highest increase of the users' opinions (by nearly 20%) during the observation referred to the 30-day Fitness Challenge application.

Figure 2 shows the percentage increase of opinions posted by users in the period from May 20, 2017 to July 20, 2017.

The highest average daily increase of the number of opinions was recorded for the 30-day Fitness Challenge application (864 opinions). The Runtastic Running and Fitness application obtained an average increase of 408 opinions. The lowest increase of the number of opinions was observed for the Aerobic Weider's 6 A6W application (the

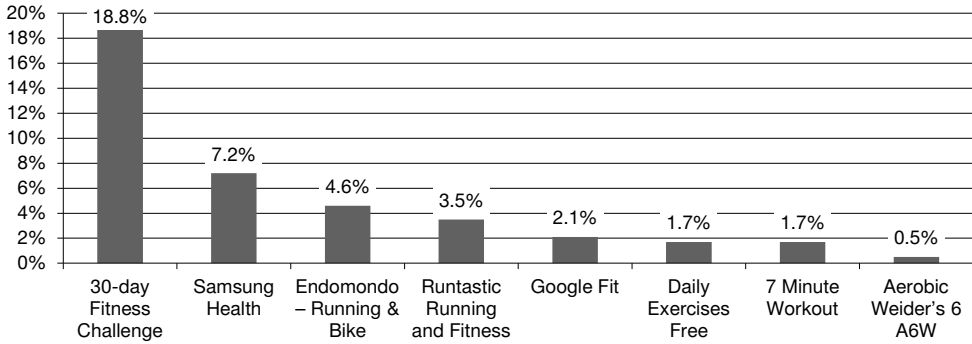


Fig. 2. Percentage increase of user opinions in the period from May 20, 2017 to July 20, 2017

Tab. 5. The dynamics of increase of the number of opinions about the analysed applications in the period from May 20, 2017 to July 20, 2017

Application name	Average daily increase of the number of opinions	Total increase of the number of opinions
30-day Fitness Challenge	864	52,722
Runtastic Running and Fitness	408	24,874
Samsung Health	344	20,954
Endomondo – Running & Bike	333	20,288
7 Minute Workout	104	6329
Google Fit	75	4568
Daily Exercises Free	34	2101
Aerobic Weider's 6 A6W	27	1666

average of 27 opinions per day). In total, within the 2 months of observation, the number of opinions about the 30-day Fitness Challenge application increased by 52,722, and about the Aerobic Weider's 6 A6W application by 1666.

The average daily increase of the number of opinions and the total increase of the number of opinions about the analysed applications are summarized in Table 5.

DISCUSSION

Health is an important area of mobile applications. Out of the 3,092,265 applications available in the Google Play store, 92,792 have been assigned to the 'Health and fitness' category, including, among others, applications supporting physical activity (AppBrain, 2017). The rankings available in the Google Play store show that applications supporting physical activity enjoy great popularity among users. Among the top 100 applications in the 'Best apps' ranking, 53 supported physical activity. The high interest in applications supporting physical activity is also confirmed by research performed by other authors. In a study by Soboń (2015), applications belonging to the 'exercises and fitness' group formed the most popular category of health applications among young smartphone users (18–29 years old) from Szczecin. At least 50% of mo-

bile health applications users installed software of this category. It is also worth noting that applications of this group accounted for over 40% of all programs installed on smartphones. The 'Mobile Health 2012' study carried out in the USA (Pew Research Center, 2012) revealed that applications supporting physical activity were utilized by 38% of health applications users.

About 50% of the analysed applications supporting physical activity provided functionalities to monitor and analyse physical activity. They allowed users to control the distance travelled, duration of the effort, and burned calories. Middelweerd, Mollee, van der Wal, Brug, and Te Velde (2014) evaluated applications supporting physical activity in the context of techniques that enabled behaviour change. Their study demonstrated that self-control and monitoring of activities were most commonly found in such applications.

Applications that provided instructional materials to support self-training constitute the second type of software supporting physical activity. Their popularity has been confirmed by Conroy, Yang, and Maher (2014). They showed that as many as 66% of the most popular applications promoting physical activity included instructions for performing exercises.

Reminding about training or designated goals is the most common functionality, available in 88% of analysed applications. Clearly, it is a useful functionality in both distinguished application groups. It increases motivation to start or to continue physical activities. Inciting the interest and encouraging to physical activity is the most important task to be accomplished by sports applications (Łania & Paśławska, 2015).

Sharing achievements with friends also turned out a popular functionality (63%). In some cases, the application enabled not only to publish achievements via social media, but also to challenge friends and promote competition. Social interactions related to group membership and competition may be a source of significant motivation to maintain physical fitness (Chen, Zhang, & Pu, 2014). A study by Foster, Linehan, Kirman, Lawson, and James (2010) showed that the daily number of steps increased in people who could share their results with friends on Facebook compared with those who did not have the opportunity. It was emphasized that such results showed the potential of social media in positive behaviour change. The influence of social interaction on supporting and motivating users was also highlighted by Ahtinen et al. (2009), who noted that social interactions, especially among family members and friends, were conducive to increasing motivation. Social communication, like exchanging messages, can also motivate users to exercise (Consolvo, Everitt, Smith, & Landay, 2006). Sharing information about activities and workout, such as distance, time, burned calories, or achieved results, with mobile applications provides physical activity with a new dimension (Stragier & Mechant, 2013).

The 2-month observation of the numbers of users' opinions on applications supporting physical activity has shown a high variability. The difference in the increase of opinions between the leading and the last application reached 51,056 reviews. When interpreting these results, however, one has to bear in mind the phenomenon of paying for opinions. There is an area of the so-called whisper marketing (Chen & Xie, 2008), which consists in reaching the user by various discussions on the Internet, potentially counted in issuing of opinions.

CONCLUSIONS

Mobile applications supporting physical activity make one of the most popular groups in the 'Health and fitness' category. The most common sports applications may be categorized into 2 groups: those enabling to monitor and analyse physical activity and those providing instructional materials to support self-training. Reminders about workout and goals, a workout diary, voice instructions during exercise, and sharing achievements via social media are the most frequently used functionalities available in sports applications. High average numbers of users' opinions and impressive download scores tend to evidence high interest in applications supporting physical activity. Undoubtedly, they should be treated as promising intervention tools in health promotion.

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REFERENCES

- Ahtinen, A., Isomursu, M., Mukhtar, M., Mäntyjärvi, J., Häkkinen, J., Blom, J. (2009). *Designing social features for mobile and ubiquitous wellness applications*. Proceedings of the 8th International Conference on Mobile and Ubiquitous Multimedia (MUM 2009), Cambridge, United Kingdom, November 22–25, 2009, 12.
- AppBrain (2017). Retrieved from: <http://www.appbrain.com/stats> [access: 18.07.2017].
- Briggs, J.S., Adams, C., Fallahkhalil, S., Iluyemi, A., Prytherch, D. (2012). *M-health review: joining up healthcare in a wireless world*. Portsmouth: University of Portsmouth. Retrieved from: http://www.academia.edu/2861333/M-health_review_joining_up_healthcare_in_a_wireless_world [access: 31.05.2017].
- Centers for Disease Control and Prevention (2015). *Physical activity and health*. Retrieved from: <https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm> [access: 31.05.2017].
- Chen, Y., Xie, J. (2008). Online consumer review: word-of-mouth as a new element of marketing communication mix. *Management Science*, 54(3), 477–491.
- Chen, Y., Zhang, J., Pu, P. (2014). *Exploring social accountability for pervasive fitness apps*. The 8th International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM 2014), Rome, Italy, August 24–28, 2014, 221–226.
- Conroy, D.E., Yang, C.H., Maher, J.P. (2014). Behavior change techniques in top-ranked mobile apps for physical activity. *American Journal of Preventive Medicine*, 46(6), 649–652; doi: 10.1016/j.amepre.2014.01.010.
- Consolvo, S., Everitt, K., Smith, I., Landay, J.A. (2006). *Design requirements for technologies that encourage physical activity*. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '06), Montreal, Canada, April 22–27, 2006, 457–466.
- Czerwińska, M. (2015). Narzędzia e-zdrowia jako instrumenty poprawiające dostęp do usług medycznych w regionie. *Nierówności Społeczne a Wzrost Gospodarczy*, 43(3), 173–185; doi: 10.15584/nsawg.2015.3.14.
- Dennison, L., Morrison, L., Conway, G., Yardley, L. (2013). Opportunities and challenges for smartphone applications in supporting health behavior change: qualitative study. *Journal of Medical Internet Research*, 15(4), e86; doi: 10.2196/jmir.2583.
- Foster, D., Linehan, C., Kirman, B., Lawson, S., James, G. (2010). *Motivating physical activity at work: using persuasive social media for competitive step counting*. Proceedings of the 14th International

- Academic MindTrek Conference: Envisioning Future Media Environments, Tampere, Finland, October 6–8, 2010, 111–116.
- Free, C., Phillips, G., Felix, L., Galli, L., Patel, V., Edwards, P. (2010). The effectiveness of M-health technologies for improving health and health services: a systematic review protocol. *BMC Research Notes*, 3, 250; doi: 10.1186/1756-0500-3-250.
- Free, C., Phillips, G., Galli, L., Watson, L., Felix, L., Edwards, P., et al. (2013). The effectiveness of mobile-health technology-based health behaviour change or disease management interventions for health care consumers: a systematic review. *PLoS Medicine*, 10(1), e1001362; doi: 10.1371/journal.pmed.1001362.
- Hebden, L., Cook, A., van der Ploeg, H.P., Allman-Farinelli, M. (2012). Development of smartphone applications for nutrition and physical activity behavior change. *JMIR Research Protocols*, 1(2), e9; doi: 10.2196/resprot.2205.
- Higgins, J.P. (2016). Smartphone applications for patients' health and fitness. *American Journal of Medicine*, 129(1), 11–19; doi: 10.1016/j.amjmed.2015.05.038.
- King, A.C., Hekler, E.B., Grieco, L.A., Winter, S.J., Sheats, J.L., Buman, M.P., et al. (2016). Effects of three motivationally targeted mobile device applications on initial physical activity and sedentary behavior change in midlife and older adults: a randomized trial. *PLoS One*, 11(6), e0156370; doi: 10.1371/journal.pone.0156370.
- Kratzke, C., Cox, C. (2012). Smartphone technology and apps: rapidly changing health promotion. *International Electronic Journal of Health Education*, 15, 72–82.
- Łania, P., Paślawska, M. (2015). Wpływ mobilnych aplikacji sportowych na zainteresowanie aktywnością fizyczną wśród dorosłych Polaków. *Zeszyty Naukowe. Turystyka i Rekreacja*, 2(16), 203–213.
- Middelweerd, A., Mollee, J.S., van der Wal, C.N., Brug, J., Te Velde, S.J. (2014). Apps to promote physical activity among adults: a review and content analysis. *International Journal of Behavioral Nutrition and Physical Activity*, 11, 97; doi: 10.1186/s12966-014-0097-9.
- Mikowska, M. (2015). *Polska.Jest.Mobi 2015*. Retrieved from: http://www.tnsglobal.pl/coslychac/files/2015/05/POLSKA_JEST_MOBI_2015.pdf [access: 30.05.2017].
- Pew Research Center (2012). *Mobile Health 2012*. Retrieved from: http://www.pewinternet.org/files/old-media//Files/Reports/2012/PIP_MobileHealth2012_FINAL.pdf [access: 19.07.2017].
- Pew Research Center (2016). *Smartphone ownership and Internet usage continues to climb in emerging economies*. Retrieved from: <http://www.pewglobal.org/2016/02/22/internet-access-growing-worldwide-but-remains-higher-in-advanced-economies/> [access: 19.07.2017].
- Research 2 Guidance (2016). *mHealth App Developer Economics 2016*. Retrieved from: <https://research2guidance.com/r2g/r2g-mHealth-App-Developer-Economics-2016.pdf> [access: 23.07.2017].
- Soboń, M. (2015). Konsumpcja mobilnych usług prozdrowotnych przez młodych konsumentów. *Marketing i Rynek*, 2, 176–186.
- Stragier, J., Mechant, P. (2013). *Mobile fitness apps for promoting physical activity on Twitter: the #RunKeeper case*. Etmaal van de Communicatiewetenschappen, Proceedings, Rotterdam, the Netherlands, February 7–8, 2013.
- World Health Organization (2009). *Global health risks: mortality and burden of disease attributable to selected major risks*. Retrieved from: http://www.who.int/healthinfo/global_burden_disease/GlobalHealthRisks_report_full.pdf [access: 31.05.2017].
- World Health Organization (2010). *Global recommendations on physical activity for health*. Retrieved from: http://apps.who.int/iris/bitstream/10665/44399/1/9789241599979_eng.pdf [access: 31.05.2017].
- World Health Organization (2017). *Physical activity*. Retrieved from: <http://www.who.int/mediacentre/factsheets/fs385/en/> [access: 31.05.2017].

STRESZCZENIE

Ocena funkcjonalności aplikacji mobilnych wspierających aktywność fizyczną

Cel badań. Aplikacje mobilne są postrzegane jako forma wsparcia korzystnych zachowań zdrowotnych. Jeden z głównych obszarów rozwoju tego typu rozwiązań to wspieranie aktywności fizycznej. Celem pracy była analiza zakresu funkcjonalności najpopularniejszych polskojęzycznych aplikacji mobilnych wspierających aktywność fizyczną. **Materiał i metody.** Wstępnej ocenie poddano 100 pierwszych aplikacji znajdujących się w rankingu „Najlepsze aplikacje” w kategorii „Zdrowie i fitness” internetowego sklepu Google Play. Ostatecznie analizą objęto 8 aplikacji spełniających przyjęte kryteria. **Wyniki.** Przeanalizowane aplikacje najczęściej udostępniały funkcję przypomnienia o treningach lub innych wyznaczonych celach. Oferowało ją 88% ($n = 7$) aplikacji. Większość aplikacji (63%, $n = 5$) pozwalała także na prowadzenie dziennika ćwiczeń oraz udostępnianie znajomym informacji o wynikach i osiągnięciach sportowych. Tak samo częsta była opcja werbalnych instrukcji podczas wykonywania ćwiczeń. Przeprowadzona analiza aplikacji sportowych pozwala na wyróżnienie 2 kategorii: aplikacje pozwalające na monitorowanie i analizowanie aktywności fizycznej (50%, $n = 4$) oraz aplikacje udostępniające materiały instruktażowe w celu wsparcia samodzielnego treningu. **Wnioski.** Aplikacje mobilne wspierające aktywność fizyczną są istotnym nowym narzędziem do realizacji interwencji z zakresu promocji zdrowia. Aplikacje sportowe mogą się przyczyniać do zachowania regularności w treningach oraz motywują do ich kontynuowania.

Słowa kluczowe: sport, promocja zdrowia, smartfony, m-zdrowie