

# Qualitative Assessment of an Electronic Activity-Tracking Device: Strengths, Weaknesses, and Considerations in Behavior Change Interventions for Health Educators.

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Motivating people to engage in regular physical activity (PA) is a constant struggle for many health education professionals. The purchase of activity-tracking devices (Fitbit, Nike Fuel Band, etc...) has been a popular trend in recent years, presumably to assist users to increase their PA. However, limited research has examined consumer feedback and overall device impact. The purpose of this study was to examine consumer feedback of electronic activity device use and assess how devices can be effectively implemented in health related interventions. Participants (n = 42) in the current study participated in an 8-week intervention, which included the inclusion of a popular electronic activity-tracking device. One-on-one interviews were conducted after the 8-week intervention. Four themes emerged: (a) the device made participants more conscious of their daily exercise habits; (b) participants enjoyed instant feedback and technology compatibility; (c) the device was limited with components important to consumers; and (d) total fuel points achieved varied with different movements. Immediate feedback can make people more conscious of their PA, however, the device was limited in components that were considered important to the participants. Interventionists should consider using electronic activity-tracking devices as one component of PA interventions too supplement other behavior change techniques.

## Introduction

Determining how and what motivates people to engage in regular physical activity (PA) is a constant struggle for many health education professionals. The World Health Organization has identified increasing PA as a top public priority to secure the health of our world (Suggs, McIntyre, & Cowdery, 2010). Physical inactivity has consequences and can result in an increased risk for heart disease, diabetes, osteoporosis, and cancer, and can contribute to the loss of muscle mass and an increased risk for injuries (Flegal et al., 2005; Sherry, Blanck, Galuska, Pan, & Dietz, 2010; Stalmatakis & Weiler, 2010).

Because of the potential to gain health benefits even when participating in lower intensity, less structured activity; public health professionals have shifted from focusing on exercise (physical fitness enhancement) to promoting moderate intensity lifestyle physical activities (Biddle, Gorely, & Stensel, 2004; Dunn, Andersen, & Jakicic, 1998).

Lifestyle physical activity accumulated throughout the day can have significant health benefits. Because the amount and intensity of PA accumulated determines the magnitude health of benefits gained, methods that allow measurement of dose of PA are useful tools in health promotion programs that target physical activity. The Center for Disease Control and Prevention (CDC) recommends that American adults partake in a minimum of 30 minutes of moderate/vigorous intensity PA preferably every day of the week (CDC, 2010). Moderate PA level is defined as the body burning between 3.5-7kcal/min (CDC, 2013). According to the CDC (2013), vigorous exercise is defined as PA that burns more than 7kcal/min in the body, such as running, and biking at a speed greater than 10mph. Daily obligations such as family responsibilities and many occupational demands can limit PA opportunities. However, many individuals remain unaware that they are not participating in enough moderate to vigorous PA to gain benefits (National Center for Health Statistics, 2010; Suggs, McIntyre, & Cowdery, 2010). Individuals may believe that they are meeting PA requirements during their daily routines but are instead falling short.

A pedometer can be used as a self-monitoring device providing valuable feedback including steps, distance, and time spent partaking in PA. The basic premise for the use pedometers is to provide an estimate of PA dose while additionally providing immediate visual feedback that increases awareness of progress toward meeting a target PA goal. Recent interest has been generated concerning the use of mobile (e.g., wearable devices) and stationary (e.g., computers) technology as a means to facilitate PA habits (Russel & Newton, 2008). Technology devices provide an alternative mode of activity analysis and track physical health goals without the influence of another human being.

Ba & Wang (2013) found that digital health communities seem to play a positive role in motivating people to be active. More health and fitness oriented websites and mobile apps are emerging every day. Technology not only serves as a tool that enables individuals to track their own activity levels, but also connect users to a community of like-minded people. Ba & Wang (2013) suggest social networking, defined as providing a website or other application that enables users to communicate with each other through postings, comments, messages, images, and other multimedia, provided by these websites, is indeed linked to people's exercise levels.

Alternatively, technology has been shown to increase PA through text messaging. Buchholz, Ingram, Wilbur, and Pelt (2013) used text messaging to deliver motivational photos to

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increase walking in older adults. They found that using text messages to achieve walking goals promoted exercise in adults (Buchholz, et. al., 2013). Text messaging can serve as an effective way to motivate people to exercise.

Lastly, combining technologies can be very effective as well. Stuckey, Shapiro, Gill, & Petrella (2013) used a health monitoring system that included an application on the smart phone, a phone with built-in mobile access to the Internet, and an online database to transmit and store data to help track participants' diabetic measurements and track their PA. At the end of an eight-week intervention, researchers found that participants increased exercise and fitness levels (Stuckey, Shapiro, Gill, & Petrella, 2013). The advancement of technology allows individuals to not only have the ability to exercise at home but track physical activity levels throughout the day with the use of multiple technology-based systems. Interventions that include the use of technology to exercise conclude that technology plays an important role potentially leading to increased PA levels (Fanning, Mullun, & McAuley, 2012). As a result, interest has shifted toward determining how technology use motivates individuals to be more physically active.

### **Motivation & Technology**

Electronic activity-tracking devices are providing a new way for people to track daily activity levels. These devices contain accelerometers that measure movement acceleration and provide minute to minute activity analysis. A rising social trend focusing on use of electronic activity-tracking devices may prove to be a factor influencing PA levels (Lyons, Lewis, Mayroshn, & Rowland, 2014). New electronic activity-tracking monitors, such as Nike Fuelband (FB), Fitbit Force/Flex, Polar Loop, etc, utilize triaxial accelerometers to measure PA and provide an advanced way to evaluate activity behaviors through interfaced connections with smart phones and computers. Many new activity-tracking devices, such as the FB, have associated programs available for activity evaluation. Connection between the activity monitor and a smart phone or computer presents much more information than can be provided solely by the wrist worn device. The ability to obtain extensive feedback by means of minute-to-minute analysis allows individuals to examine activity patterns during specific time periods throughout the day. Additionally, activity feedback is individualized and many new activity-tracking devices provide charts, comparisons, and indicators of progress towards personal goals (Polzien, Jakicic, Tate, & Otto, 2007). The use of activity-tracking devices in clinical interventions has resulted in promising results (Kang, Marshal, Barreira, & Lee, 2009; Muller-Riemenschneider, Reinhold, Nocon, Willich, 2008). However, more research is needed concerning the usefulness of these devices in the health education profession.

The self-determination theory (SDT) by Deci and Ryan provides a broad framework explaining individual motivation by intrinsic and various extrinsic sources (Deci & Ryan, 2000). Deci and Ryan (2000) describe how social and cultural factors facilitate behaviors and undermine volition and initiative. Hsu, Buckworth, Focht, and O'Connell (2013) explain that the SDT is increasing being applied to physical activity interventions. A recent meta-analysis by Ng (2012), found that the implementation of SDT principals in physical

activity interventions has been shown to be effective. Reaching a daily PA goal, such as the total number of steps achieved in a day, can provide extrinsic motivation and accomplishing tasks that are fun and enjoyable can provide intrinsic motivation. Technology provides an additional or alternative mode of motivation, potentially reinforcing behaviors through self-evaluation. Electronic activity-tracking devices provide extrinsic motivation for people trying to reach daily PA goals and if the participant perceives the technology and the programs that support the device as fun or enjoyable the device can provide intrinsic motivation as well.

Research has found that technology can increase individual motivation to exercise by documenting achievement of PA goals (Fanning, Mullun, & McAuley, 2012). A meta-analysis by Fanning, Mullun, & McAuley (2012) reported that individuals using mobile technology devices for monitoring PA significantly increased activity level. Functions such as device pairing with software programs allow devices to sync data to smart phones and computers for more advanced evaluation of activity data. Most activity tracking programs allow daily, weekly, and monthly analysis resulting in a more comprehensive activity evaluation.

Activity evaluation has generated overwhelming interest from people who are both starting to become physically active and those maintaining current physically active lifestyles. Activity-tracking devices provide a cost effective method of self-monitoring that can contribute to healthy behavior change. Activity-tracking devices could have a positive impact on public health because people are attracted to newer technologies and these devices can be easily adopted, implemented, and maintained during a PA intervention (Mayrsohn & Khalil, 2014). Activity-tracking devices could potentially serve as another tool for health education professionals to use as a component of behavior change interventions and programs.

### **Fuel Band Technology & Motivation**

The FB continuously tracks activity levels via Fuel points, steps, and daily caloric expenditure. The FB has an LCD screen allowing immediate activity feedback. A unique feature is that the FB utilizes "Fuel points" to track activity levels and activity goal attainment. Nike explains that fuel points were designed to be a simple universal way to calculate how much a person moves in a day. Fuel points are calculated the same way for everyone and they don't take into account body weight, age, or gender (Nike.com, 2015). Activity parameters and fuel points are provided to users via the LCD screen, which allows individuals to better understand how much activity is needed to meet an individual activity goal. Activity goals can be changed at any time and adjusted for fitness outcomes. Lee, Kim, and Welk (2014) report the Nike Fuelband, along with various other devices, were deemed valid and acceptable instruments assessing physical activity for consumers.

The FB is linked to a personal online account (Nike+ Connect), on a website/program designed to help individuals monitor daily activity levels. Data can be synchronized to Nike + Connect via the clasp, which doubles as a USB cable, or the accompanying application for an iOS device using Bluetooth. Nike+ Connect allows individuals to examine daily activity as well as weekly, monthly, and yearly patterns. More specifically, Nike+ Connect provides hourly activity data allowing for a

retrospective evaluation of daily activity levels and trends. The integration of goal setting with the use of these new activity-tracking devices is hypothesized to be an important factor consumers will use aiding behavior change. Pedometers have been used in PA interventions and new electronic activity-tracking devices could be a valuable catalyst for behavior change. The purpose of this study was to examine consumer feedback of electronic activity device use and assess how devices can be effectively implemented in health related interventions. Findings could potentially help explain how these devices could be utilized in physical activity behavior change interventions.

## **Methods**

### **Participants**

The opportunity to participate in the study was offered via email solicitation to university employees, students, and members of the university wellness program of two mid-sized universities (n = 42). The email explained the intervention as a PA initiative to promote healthy living with the use of an electronic activity-tracking device. To be eligible for study participation, subjects had to be 25 years of age or older. Participants were required to attend Pre-Intervention training for study explanation and device functioning. Participation was limited to the availability of electronic activity-tracking devices. Participants were not required to purchase any equipment. Participants had to commit to wearing an electronic activity-tracking device every day for 8 weeks.

### **Nike FuelBand SE**

Use of the Nike Fuelband SE (FB) served as the instrument for the intervention. The Nike Fuelband SE was chosen because at the time, it was the newest device on the market and was the updated version of the original Nike Fuelband. Presumably, technological bugs were fixed, the SE edition was user friendly, and no research exists concerning intervention integration. The FB is a wrist-worn, three-dimensional, accelerometry-based device that assesses body movement, steps, distance, and calories burned. The Nike+ Connect program allows for goal setting and documents goal attainment. The Nike Fuelband SE calculates daily physical activity as fuel points. Linking the FB to the Nike+ Connect program is essential for full functioning of the FB. Access to the program is free after purchase of the sport band. Program profiles were created for each sport band (username & password) and provided to each study participant at the intervention training. Each profile was modified with participant's personal information, i.e. height, weight, and device personal preferences. The Nike+ Connect program allows for social support and group challenges; however, the current project focused on individual use without social interaction.

### **Training**

Participants were required to attend a 1-hour training course. At the start of the course, informed consent was obtained according to the approved Institutional Review Board process. At the pre-intervention training, participants

were taught how to use the FB, received an explanation of all functions of the device (goal setting, hours, steps, & energy expenditure), practiced using the Nike+ Connect program via technology devices of choice (i.e. smart phone, computer, laptop, or tablet), and were taught how to upload data. Participants were instructed to charge their device on Monday and Thursday of each week to upload their data. Lastly, participants were encouraged to wear the FB all day over the next 8-week intervention. Participants were provided a problem-shooting guide that included common questions, concerns, and solutions. Furthermore, if problems arose they were to email the researchers with questions. The researchers designed the training including a history of electronic activity devices, how the Nike Fuelband SE works, how to set activity goals, and what functions represented. Next, participants were shown how to use the device. The same training outline was administered at both research sites.

### **Intervention**

The intervention began the week following the pre-intervention training and lasted 8 weeks. Participants wore the FB all day throughout the next 8 weeks. Participants set a daily exercise goal based on Nike fuel points. Participants tried to meet their fuel point goal each day of the 8-week intervention. No other behavior change techniques were used during the intervention. Participants didn't communicate via social media or use any other features the FB might offer. Researchers attempted to explore if reaching a fuel point goal was motivation for participants to exercise more each day and the strengths and weaknesses of the device.

### **Assessment**

One-on-one in person interviews (n = 42) were conducted when participants returned the FB after 8 weeks. Interviews took approximately 20-30 minutes to complete. Interviews were face-to-face included probing questions that addressed participants' experience with the FB. Questions were based on the participant's attitudes and perceptions concerning awareness of exercise habits, if the FB motivated them, and strengths/weaknesses of the FB. Data were recorded by having participants write their answers and return them to researchers. Questions included: (a) How did/didn't the FB motivate you to exercise; (b) How did/didn't the FB make you more conscious of your exercise habits; (c) What were reasons that you forgot to wear the FB; (d) How would you compare the FB to other devices you have seen/used; (e) After the 8 weeks of use, what were the strengths of the FB; (f) and What were the weaknesses of the FB. The researchers developed and agreed upon these questions addressing the purpose of their study.

### **Data Analysis**

Qualitative data was analyzed following the principals that are outlined in Merriam's (2009) book, *Qualitative research: A guide to design and implementation*. After the interviews (n = 42) were completed, interview notes from both institutions were compiled and open coding took place. After open coding, ideas were analyzed and sorted to identify overarching themes, which were then combined, narrowed,

and adjusted to determine final themes. Triangulating analysts (having two or more persons independently analyze the same qualitative data and compare their findings; Patton, 2002, p. 560) contributed to the trustworthiness of this study as all researchers were involved in data analysis (Merriam, 2009). The common themes that were expressed by the majority of the participants were generated to represent the results.

## Results

Four specific themes that emerged from the participant responses included (a) the device made them more conscious of their daily exercise habits; (b) participants enjoyed the instant feedback and technology compatibility; (c) the device was limited with components important to consumers; and (d) total fuel points achieved varied with different movements.

### Consciousness of Daily Exercise Habits

The majority (n = 38) of participants said that the device made them more aware of their activity levels throughout the day. It took more effort to reach their daily FB points than was expected. One participant said, "I could see how many fuel points I was averaging at the end of the day and learned how to average 2500 fuel points a day rather than 1500-1600 as I was before the fuel band." Another participant said, "Being aware is half the battle, now I know how little I was moving during the day." One participant mentioned, "The fuel band made me more aware of the lack of exercise I was getting throughout the day." Lastly, there were a few participants who mentioned that they would try to walk more in the afternoon if they saw that there fuel points were lower than they had expected for the day.

The majority (n = 38) of participants mentioned that the FB made them more conscious of their daily physical activity, but there was a mix of opinions on whether or not the FB motivated them to exercise. One participant stated, "At first it (FB) motivated me more, kind of like a new toy you get for Christmas and then the newness wore off." Another participant stated, "It (FB) motivated me to make sure I reached my FB goal each day and I even started to exercise in the morning to exceed my daily goal." One participant said, "At first it (FB) was a good gauge of my activity, but my desire to exercise did not change." Lastly, a participant said, "He liked it (FB) and if he was close to his goal at night he would go out walking, but he wouldn't buy it because it didn't motivate him enough."

### Instant Feedback and Technology Compatibility

The FB has an LCD screen that allowed the participants instant access to information about how close they were to reaching their fuel point goal each day. The majority (n= 36) of participants said that this instant feedback was very helpful. Participants explained that it (FB) gave them a visual tool they could look at to see how active they were each day. Participants explained that it was very easy to use the online account. One participant stated, "very easy to use and a great online interface program." Participants mentioned that being able to login into Nike Connect+ and see their weekly totals was very easy to do and understand. Lastly, one participant stated, "I really enjoyed all the features it (FB) had."

### Components Important to Consumers

A majority (n = 35) of the participants wanted the FB to have additional components. Participants mentioned that the device was bulky, it wasn't snug on their wrist, it didn't have a sleep tracker, and it wasn't waterproof (only water resistant). One participant stated "no sleep monitoring, no vibrate for alerts, and the latch would pop open from time to time." Another participant stated "The watch was big and bulky so it (FB) rattled around on my wrist and could be annoying." Participants also didn't like the color selection or said that there should be more colors to pick from. One participant mentioned, "It was hard to match with professional clothing."

### Total Fuel Points Achieved Varied

Participants in this study stated the FB points would disproportionately increase or decrease at different rates depending on the type of movements they were doing. One participant stated, "It (FB) did not seem to record all activities correctly." Another participant stated, "It (FB) didn't register as much as I thought I was exercising as compared to other days." Participants mentioned that when they were doing lower extremity movements (stepper machine, elliptical, stationary bike, and cycling) the FB points would not register as effectively. Participants also mentioned that movements involving the upper extremities (swinging a golf club or playing ping pong) would increase their FB points at a surprising rate since they did not think they were working very hard. Lastly, it was reported by a couple of participants that points were generated when they were riding on a boat or a motorcycle.

## Discussion

Findings from this study provide quality information about activity tracking devices. In general, participants had varying perceptions of the FB providing valuable information concerning device strengths and specific components they thought were missing from the FB. Participants expressed how important it was to have instant feedback so they knew exactly what they had to do if they wanted to meet their goal each day. These findings are important for professionals because it serves as an additional means of goal accountability. Participants knew what was needed for goal attainment, increasing their activity awareness. Deci and Ryan (2000) explain that motivation is influenced by intrinsic and extrinsic sources. Having that immediate feedback gives people the initial extrinsic motivation to get up and move. The extrinsic motivation of trying to accomplish a certain amount of fuel points each day was not motivation enough for the participants and participants found problems with the device that didn't make it an enjoyable (intrinsic) device to use.

It has been found that technology can aid in a person's motivation to exercise (Fanning, Mullun, & McAuley, 2012). However, since participants' opinions varied in whether or not this motivated them to exercise, professionals could consider using activity tracking devices as a supplemental tool to help aid in their interventions, but not as the primary focus of a physical activity behavior change intervention. It also was important that the technology was easy to use. Professionals understand that behavior change is more likely when people

do not have to encounter problems along the way. Technology can be frustrating, but participants in this study explained that they enjoyed the easy-to-use program that went along with the FB. For instance, activity data can be synced by simply plugging the band into a computer or Bluetooth, making it readily accessible.

Participants reported that the FB made them more conscious of their activity throughout the entire day, and some of them realized that they were not as active as they thought they were. Some individuals may believe they are meeting physical activity goals when, in actuality, they are falling short. Physical activity consciousness could be a valuable tool in behavior change interventions that are designed to increase physical activity. New electronic activity-tracking devices can be very useful because they eliminate self-report over or under estimation of daily physical activity. Electronic activity-tracking devices are a more objective measurement tool than self-report assessments.

Furthermore, the goal setting function on the FB was found to be a valuable tool that participants appreciated. This type of feedback can aid interventionists in planning progressive activity programs potentially making programs more effective because individuals can be held accountable with goal attainment identification. When using these devices during an intervention, the interventionists can see if the participants are meeting their daily physical activity goals throughout the week. If the participants are meeting their goals then the interventionist can increase their daily goals or if they aren't meeting their daily goals then interventionist can decrease their goal. These devices can allow for the proper adjustments to be made throughout the intervention rather than waiting until the end.

A study analyzing 8 different electronic activity-tracking monitors found that the FB was ranked 7th in its ability to track energy expenditure (Lee, Kim, & Welk, 2014). It is important to note that some participants in this study explained that they thought the FB was not recording some of their activity correctly. As explained, lower extremity movements seem not to generate very many points and upper extremity movements seem to generate more than expected. Health professionals might want to take this into consideration when planning an intervention with these devices.

### **Health Education Implications**

Newer technologies, such as the FB, can help improve health education interventions and provide an additional way to reach different populations. In assessing the needs of participants in this study, it was found that these devices helped participants become more conscious of their daily, weekly, and monthly physical activity levels. Their use may make people more conscious of their movement because of measurement advancements associated with accelerometry, the capability to display data/results, and integration of behavior change techniques/strategies. This suggests that the use of activity tracking devices should be considered when planning and implementing interventions designed to increase PA behavior, as technology has become an important aspect of many individuals' lives. Researchers can use these types of devices, newer technologies, and the online programs offered by these newer devices to track their participants' PA throughout the

intervention.

Furthermore, interventionists should incorporate activity guidelines to help individual goal adjustment. For example, the current study instructed participants to increase their PA goal after they met their goal three days in a row. This guideline helped participants monitor their goal attainment and progress towards their overall fitness goal. Lastly, the best participants are those who are ready to change. Electronic activity-tracking devices can aid in the behavior change process, but they will be ineffective for individuals who lack motivation or are unwilling to change. Strategies unrelated to the use of activity monitors should also be integrated into interventions to help those unwilling to change. Behavior change techniques and strategies that might be used in combination with these devices include: (1) setting a goal so that participants have to achieve a certain amount of activity each day, (2) providing positive reinforcement when participants reach their daily and weekly activity goals, (3) encouraging competition between participants to reach their goal, (4) encouraging text messages or other social media communication between participants to help keep each other motivated, (5) setting participants up with a partner so they can motivate each other, (6) or create a blog or message board for participants to post their daily PA totals and questions they might have about the device.

Physical activity motivation is different for everyone, but one of the first steps in any behavior change program is to have people become more conscious of their daily habits. When health professionals are consulting with people about their diet, the first step might be to have people journal or keep track of what they are eating. This helps the person become more conscious of his/her diet. In health education interventions, it is very important to get people to become more conscious of their daily habits. When people become aware of their unhealthy daily habits, they can work to correct them. By becoming more conscious, individuals can identify triggers associated with periods of physical inactivity and work towards overcoming these behavior triggers. As for physical activity interventions, these activity-tracking devices can help increase people's consciousness of their daily and weekly physical activity habits as a means to begin the behavior change process. It has been explained that activity-tracking devices can potentially have a large public health impact (Mayrsohn & Khalil, 2014). With that being said, professionals should consider the use of these devices in PA behavior change interventions to help people become more conscious of their daily physical activity habits. However, this study has found that these devices should be combined with other behavior change techniques when trying to plan the most effective PA intervention.

Lastly, the researchers found that one of the most important aspects of FB intervention integration was the 1-hour training. During the training, participants were taught how to utilize each function of the FB. This proved to be valuable and participant feedback was overwhelmingly positive after the training. It was also valuable to the researchers because there were virtually no major issues or setbacks during the intervention. There were a few times when participants forgot to download their data. However, this was easily resolved by the researcher emailing the participant and reminding them to download their data.

## Limitations

This study is reliant on self-reported opinions related to the physical activity motivation associated with use of an activity-tracking device, the strengths and weaknesses of using the device, and the device's capability to track physical activity. It was assumed that all participants accurately and honestly answered each question during the one-on-one interviews. Furthermore, it was assumed that participants in the current study were ready for behavior change because they voluntarily agreed to participate in the study.

## Conclusion

In summary, this study reports that activity-tracking devices made individuals more conscious of their exercise habits. However, whether these devices independently motivate people to be more physically active has yet to be determined. It has been found that electronic activity-tracking devices, when combined with multiple behavior change techniques can be effective (Lyons, Lewis, Mayroshn, & Rowland, 2014). During this intervention, the only method used was goal setting. Participants attempted to reach their daily goal of FB points. It was found that participants enjoyed the instant feedback that these devices provided and this made them more conscious of their activity habits, but adding more behavior change techniques to a health intervention could produce more effective behavior change results. Future studies should explore whether electronic activity-tracking devices are more effective if combined with multiple behavior change techniques and strategies.

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1. At least one author of submitted manuscripts must be a current member of Eta Sigma Gamma. If no longer affiliated with a local chapter, an author can affiliate with the National Chapter as a member-at-large.
2. Manuscripts are submitted electronically in Microsoft Word. Contact the Editor for specific software program questions.
3. Submit one electronic file (without author information) that includes the title, abstract, manuscript, references, and tables and/or figures in a single file. When feasible, tables should be submitted in portrait format and they should follow the references on separate pages rather than be embedded in the manuscript. Tables must be limited to no more than five.
4. Submit a second file with title; all authors' names, degrees, professional titles, addresses, email, FAX numbers, and ESG Chapter membership; indicate the corresponding author.
5. Include an abstract of not more than 200 words.
6. Submit double spaced manuscripts in Times New Roman 12 point font. Research submissions and Literature Reviews may be up to 4500 words (not including abstracts, tables and references). Limit Research article references to 30 reference and Literature Reviews to 40. Teaching Ideas and Health Education in Practice Submissions should be limited to 2300 words with 10 or fewer references.
7. Follow the Publication Manual of the American Psychological Association (6th edition). Manuscripts will not be accepted if APA style is not used. Please refer to [www.APAStyle.org](http://www.APAStyle.org) for links to examples for citing Internet references.
8. The author is responsible for accuracy of the manuscript, including references, diagrams, figures, charts, and tables.
9. With each submission, please include a signed statement attesting that:
  1. The manuscript is not being considered for publication elsewhere at this time and has not been previously accepted or published elsewhere.
  2. The author(s) transfer copyright ownership to *The Health Educator* upon publication. Submit manuscripts to:

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### **Other Information**

1. *The Health Educator* cannot consider any manuscript simultaneously considered for publication elsewhere.
2. Acknowledgement of receipt of manuscripts will occur promptly. Notification of acceptance or rejection for publication takes place in approximately six weeks.
3. Publication in *The Health Educator* is a contribution to the profession and no remuneration is made. Authors receive two complimentary copies of the issue in which their manuscript appears.
4. Informed consent must be obtained in all research involving human subjects. All manuscripts reporting results of research involving human subjects should indicate informed consent was obtained via the appropriate Institutional Review Board approval process.
5. Authors are required to disclose funding sources and any potential financial conflicts of interest. Funding sources may be acknowledged at the end of the manuscript.