

Review on end of life care prediction by family-witnessed resuscitation.

Adetayo Olaniyi Adeniran*, Oluwadamisi Tayo-Ladega

Department of Logistics and Transport Technology, Federal University of Technology, Akure, Nigeria

Abstract

Regarding the concept of end-of-life care or end-of-life, many of the previous studies were unable to accurately make a clear definition. However, several authors have attempted to provide a succinct definition of this phrase. These two descriptions appear to be general and ambiguous. It seems tough to come up with an accurate or comprehensive description of end-of-life care. The findings of these studies revealed that there are overlapping perspectives and perceptions about the predicted effects of enabling Family-Witnessed Resuscitation (FWR). The bulk of the research analyzed show that the members of the family would desire to attend Cardiopulmonary Resuscitation (CPR) for their loved ones. This is one of their rights, according to many of them. The majority of patients thought FWR was convenient and would help the resuscitated patient. Nevertheless, a few patients raised concerns about the effect of this presence on the competence of health personnel, including the impact on the resuscitated patient. In researches that deal with the examination of health professional's views and opinions about FWR, the results were mixed. Several researches have shown that FWR has significant benefits for family members, patients, and health care providers. However, numerous studies have identified concerns about this presentation, such as the psychological impact on family members, the additional stress that this presence may cause for health professionals, and the potential for legal action in consequence of this presence.

Keywords: End-of-life care, Death, Grieving, Social Factors.

Accepted on December 13, 2021

Introduction

There is a huge distinction between death occurrences and believes in the past and that of the present. The level of death occurrence in the present is increasing compared to the past, and it is influenced by population increase, globalization, global warming, internet penetration, and various discoveries. According to Carlet, death is frequently a private, religious or spiritual event with a group of family members and friends gathered around the victim. However, as death becomes a topic of public concern and more technical procedures are introduced to avoid or facilitate dying, the picture of death is changing. End-of-life care for families and their patients has been a hot topic for the past two to three decades.

This could be in consequence of a variety of factors, such as the shifting away from a solely medical perspective and toward a more holistic approach to caring. Alhalaiqa said that in early 1970s, he saw a transition away from a strictly biomedical survival perspective and toward a dual perspective. This includes focusing care on saving lives and enhancing medical identities, as well as taking care of family members and developing numerous social identities. Supporting life procedures and modern technology introduced to the treatment process contribute

to hospitalized patients disease becoming more severe [1].

Most significantly, in today's healthcare environment, families and their patients expect to be included in the treatment process as well as in the decision-making process. The majority of the literature fails to define end-of-life or end-of-life care precisely. However, several authors have attempted to provide a succinct definition of this phrase. These two descriptions appear to be general and ambiguous. It seems to be difficult to establish a precise or comprehensive description of end-of-life care. End-of-life care in the Intensive Care Unit (ICU) was detailed in detail by Alhalaiqa [2].

Alhalaiqa pointed out that while delivering end-of-life care, there are no set processes or stages to follow, making it difficult to assess the effectiveness of any end-of-life programs. However, talking about death and end-of-life care, as well as having open dialogues about these topics, may contribute to the development of guidelines for healthcare professionals to provide high-quality end-of-life care. End-of-life care is also implemented differently depending on a variety of criteria, including the patients' conditions and the departments. Cardiopulmonary resuscitation of victims and their relatives in acute settings is the focus of this study [3].

Literature Review

Stages of the crisis at duration of unexpected death

There are four stages of crisis during a sudden death. They are recognized and listed in order of difficulty from the least challenging to the most challenging crisis. If any of these stages are not addressed, a person may progress from one to a more challenging one [4].

First stage: The presence of a threat that could harm patients family members is included in the first stage. This threat may cause stress or tension among the relatives. This stage may entail family members' fears that something dangerous has occurred to their loved one in the case of Cardiopulmonary Resuscitation (CPR). The routine coping mechanism, according to Wright, may be able to settle this stage. Wright also stressed the necessity of previous experience in minimizing the effect of this stage. Surprisingly, many studies revealed that most of family members who have previously watched Family-Witnessed Resuscitation (FWR) wish to be present again [5,6].

Second stage: Failure to treat persons in this stage may result in their illness worsening and sending them to the second stage. According to Wright, the failure of previous experience to tell people how to deal with this new situation may have resulted in the second stage. Feelings of helplessness and hopelessness may intensify throughout this stage [7]. People at this stage, according to Wright, try to find alternatives. Wright revealed that relatives can utilize the trial-and-error method to figure out the most acceptable response to the situation. Allowing FWR was supposed to increase death acceptance and assist bereaved families. This would hasten the grief process and make it easier to accept death as a natural result of CPR [8].

Third stage: Intense activity, disorder, and disarray characterize the third stage, old fears resurface, preoccupation with trivia and make-or-break action are all present. This stage, according to Wright, might be overcome by changing the focus. Several studies have found that family members prefer to attend their loved one's CPR because it allows them to acquire information more rapidly. This would also lessen family tensions and reduce the likelihood of inappropriate behavior [9].

Fourth stage: The patient's relatives may be unable to cope with the situation in the fourth stage, and they may retreat and feel gloomy. Wright recommended taking various actions to manage this stage, including addressing the relatives' comfort requirements, listening to them without passing judgment, creating a quiet environment, and taking a break from the problem-solving effort. These interventions were suggested in the literature as a way to satisfy the requirements of the patients' relatives during CPR. The necessity of treating families as soon as possible would be highlighted if healthcare providers considered these stages and recognized each one. This prevents families from progressing to a more mature level.

Individuals do not, however, necessarily progress through all of these stages. Some people may skip the early stages and proceed straight to the advanced stages, while others may adjust to abrupt death and recover swiftly without experiencing any of the preceding stages. The determinants of grief and the elements that affect bereaved individuals during sudden death are discussed in the next section.

Causal Factors of Grieving

In general, there was no systematic study of the elements that would affect families' reactions and feelings during and after CPR, especially if the CPR resulted in death, in the literature. It might be worthwhile to go over these points again. Several elements were thought to play a role in creating the powerful feelings, reactions, and grief experienced by people who died suddenly. Six elements, according to Wright, have a significant part in deciding how families grieve when a cherished person dies suddenly.

Manner of death

The patient's condition at the time of death should be known to healthcare personnel. It was generally assumed that natural (normal) death would cause less grief than unnatural (abnormal) death. The natural deaths are usually unavoidable, while the unnatural deaths are usually avoidable. The avoidable deaths are mostly caused by either human or mechanical faults. Parkes, who worked as a psychiatrist, noted that all of the bereaved people he had visited had experienced extremely traumatic kinds of bereavement. It has been stated that healthcare professionals who deal with CPR in consequence of injuries and accidents are more rigorous about allowing family members to participate in CPR. The majority of these health care providers raised serious worries about the presentation's potential adverse effects on family members.

Helmer revealed that comparing trauma patients to those with medical disorders is problematic. It would be more difficult to blame others if the death was caused by natural causes such as disease, according to Wright, family members, on the other hand, some may blame healthcare experts, health organizations, culture, or society, as well as themselves for not being able to do more than they did. The sadness of losing a loved one will be magnified if he or she was far away from home or family members, according to Wright. This demonstrates the importance of family members being present during CPR.

The identity of that person (victim)

The depth of the grieving process is influenced by the patient's status in the family. On the other hand, Wright cautioned against making assumptions based on this characteristic. For instance, if a breadwinner dies unexpectedly, such person will be mourned for a long time because of the significant position that the person occupied in the family. Furthermore, the loss of one of the

parents would have an impact on other susceptible family members' feelings of stability and safety [9].

Manner of attachment

The loss of a key individual is usually the most distressing. This can involve the death of someone with whom one has had a close relationship. As a result, the stronger the link between the grieving individual and the deceased person, the more severe the adverse effects on the departed relatives are expected. This, however, is not a rule. A father or a mother, for example, some may have various amounts of attachment to their sons. To determine the strength of this relationship, a series of questions should be asked. This includes questions like, "What does this loss represent?" and "What security or safety aspects might be jeopardized in consequence of this loss?" Wright noted that the provision of answers to the following questions would aid in determining the bereaved person's level of vulnerability. Another essential aspect of the attachment's nature is the security and safety difficulties that arise in consequence of the relationship. For example, losing a father who is the family's sole source of money might increase tension among family members.

Individual characteristics

Personal qualities have a vital influence in determining how people react when they are dying or receiving CPR. People react to abrupt death in different ways, according to Wright. Wright also discovered that the personality of a patient's relatives has an impact on how they search for a healthy grieving resolution. Emotional and physical well-being, according to Walsh and Crumbie, provides people with more resources to cope with losses. As a result, healthcare providers should be prepared to cope with people who have a wide range of mental and physical resources for coping with loss, as well as diverse levels of social support. It appears that assessing people's personalities or evaluating the differences between patients' families is challenging during CPR. It appears critical to emphasize that not only personal traits influence people's reactions, but also other elements such as family preparation, healthcare preparation, and environmental preparation. Family members should, for example, be accompanied by trained staff during CPR, and they should be given a suitable location to sit and observe the treatment.

Social, cultural and religious factors

When people lose a loved one, social, cultural, and religious variables may have a big impact on their feelings and reactions. The availability of social assistance would help to mitigate the crises impact on patients families. In a survey done by Al-hassan and Hweidi, relatives of Jordanian patients rated their need for assistance as the lowest. Jordanians, it was revealed, rely on other family and friends for the majority of their support. Jordanian people in critical care units were assessed in this study,

which was conducted in Jordan. However, the goal of this study was to look at the needs of critically sick patients' families, not their needs at the time of death.

Some religions and cultures, according to Wright, assist the bereaved by providing support and confirmation of their worth. Some religions, such as Christianity, are commonly thought to be helpful and supportive in the event of a sudden death, according to Wright. Jordanians' opinions and behavior on matters such as health and death are heavily influenced by religion and culture. People in Jordan, for example, rely on their relatives for financial and psychological support rather than relying on other resources such as hospital professionals. As a result, Jordanian patients frequently have a significant number of visitors. The task of healthcare professionals is made more difficult by the fact that they must deal with a huge number of visitors.

In conclusion, these six criteria appear to be critical to consider when devising any remedy to lessen the harshness of the grieving process. Understanding these characteristics will aid healthcare providers in identifying the issues that patients may need to address in order to begin the grieving process. The following discussion looks at a suitable plan for treating bereaved family members appropriately.

Dealing with Bereaved Relatives at the Time of Sudden Death and using CPR

In the work of literatures, there is no mention of FWR in relation to end-of-life care. According to Kubler-Ross, grievors go through five stages. Denial or a sense of isolation may be felt by grievors at first. This means that grievors may say things like "don't say that" or "no, he didn't die" to indicate their disbelief. Wright suggested a number of methods for coping with this emotion, including finding a polite way to inform family members of the bad news. According to Davidhizar and Newman-Eiger, nurses, on the other hand, should comprehend the value of denial. They claimed that denial is one of the safest strategies to deal with the unfathomable.

Second, grievors may have a sense of rage. They might start saying things like 'why me?' or 'why now?' as a form of protest. Kubler-Ross warned that grievors might start blaming the healthcare experts for the lack of justice. Nurses and other professionals may take this personally. The bereaved people may begin haggling with healthcare providers. They might try to put off the inevitable. Healthcare practitioners, according to Wright, should accept this and endeavor to reach an agreement with grievors to prove the death. The bereaved people may experience depression. When grievors can no longer deny or relocate, they enter this stage.

Grievors may experience feelings of sadness and crying at this stage as they begin to recognize reality. Withdrawal, stillness, and helplessness may be observed by bereaved

people. As grievors reach the acceptance stage, they stop striving to ignore or avert the unavoidable death. Grievors begin to comprehend the concept of death at this point, and they begin to relax and feel at ease. A research by Brysiewicz and Uys employed a semi-structured interviews to examine the ED healthcare personnel' capability to handle the situation of sudden death. The study reacted to findings of previous studies that was conducted by Brysiewicz. A model was created to give healthcare personnel guidance on how to cope with unexpectedly bereaved families before, during, and after death.

This approach instructs healthcare providers on how to cope with family members while performing CPR. This would also make it easier for families to accept their loved one's death. Before the happiness of death, the first half of this paradigm includes instructions for dealing with bereaved families. This comprises implementing two ways to improve the department's performance, as well as enhancing the department's culture and guaranteeing enough resources. The model's second section contains suggestions for coping with bereaved relatives after they have died. This involves making the caring process more efficient. Three ways are expected to do this. Proximity, sensitive communication, and sensitive death-telling are the three.

The model's final piece includes advice for dealing with bereaved families when a loved one has passed away. This entails giving family members the best possible support. It was recommended that two approaches be taken. Assisting and supporting medical professionals, as well as assisting mourning families, are among these responsibilities. Once this paradigm was established, ED professionals capacity to communicate with families at the time of a loved one's death was stated to improve. Data from a prior study was used to develop this model. The use of qualitative design allows researchers to gain valuable insight into the perspectives and recommendations of families and healthcare providers. However, because of the small size of the original study's sample and the fact that the data was taken from a single institution, the findings are limited in their generalizability. This model was implemented in ED. The current study, on the other hand, adopts a different approach.

Regarding the effects as influenced by technology, the majority of studies and reviews focused on FWR in emergency departments, according to a review of the literature. The current study, on the other hand, is concerned with the views of healthcare workers and family members in adult critical care settings. As a result, it appears that some light should be shed on nature and the characteristics of the critical care environment. In terms of the rate of CPR, patient conditions, and work environment, Demir highlighted that there are certain distinctions between the ED and critical care units. Critical Care Units (CCUs) are specialized units for patients with life-threatening illnesses. During the care of a critically ill

patient, healthcare workers are expected to face numerous physiological and psychological problems.

Furthermore, critical care specialists are increasingly expected to provide psychological and emotional support to the families of critically sick patients (Benner et al., 1999). Critical care workers, according to Offord, are expected to deal with dying patients and bereaved relatives more than experts in other departments. The conditions of patients in critical care units differ from those in other departments. In critical care settings, CPR is a regular technique. Hadders found that ICU clinicians are frequently unsure regarding the resuscitation results of their patients. According to Hadders, individuals who receive CPR either survive or recover completely. After CPR, most survivors rely on machines and technology to keep them alive [10].

According to Benner, the necessity of providing psychological and emotional care for patients and their relatives in critical care settings is undervalued. More than anything else, this was intended to result from a focus on the patient's biological demands. It should be noted, however, that the presence of a family member in one of the critical care units will upset established family roles and will frequently throw a family into disarray. Moving forward, a number of studies have demonstrated the necessity of assisting critically ill patients' families and include them in patient care. The critical care environment differs from other hospital departments in that it typically contains skilled healthcare staff as well as advanced technology.

In these situations, multiple machines and monitors must be present surrounding each patient. Professionals encounter a number of obstacles in this context. Medical experts had to learn how to use all of the new machines and technologies. The dealing with technology should not prevent healthcare workers from considering other patients. Sundin-Huard noted that critical care personnel are frequently obsessed with their patients' immediate physical and technological needs. To ensure patient survival, technology should be employed to provide maximal patient benefit while also considering the needs of other patients and their families.

Mosenthal and Murphy noted that people are increasingly seeking death dignity without unnecessary using life-prolonging gadgets, but they equally value high technology's promise of cure and spectacular lifesaving measures. As a result, it appears that providing technical assistance to critically sick patients and their families, as well as describing the role of each machine in the patient's environment is enhanced. In a critical care setting, Hadders explained how critically ill patients and their families felt about being reliant on technology. FWR has been reported to be more acceptable in the ED than in critical care settings in the literature. According to Bennun, critical care specialists place a greater emphasis on technology

than on providing psychosocial treatment to patients and their families.

Because critical care specialists are so focused on technology, they overlook other parts of care, such as family-centered care. This was also assumed to be the reason why critical care workers resisted allowing family members to participate in treatments like CPR. The current investigation takes place in a critical care setting. The majority of the literature, however, is based on evidence from ED settings. As a result, it appears that the findings of these investigations must be taken into account. However, the mind should be awakened to consider the contrasts between the emergency department and critical care settings.

McMahon-Parkes examined the opinions of patients who survived CPR and those who were not resuscitated. Patients were indifferent about compromising confidentiality in consequence of FWR, according to the researchers. Redley noted that the ethical principles surrounding FWR should be further discussed. The importance of a qualitative approach in studying FWR would provide a broader perspective on these principles and their impact on healthcare professionals' and families' perceptions. Several questions must be answered, such as "who is the person that will be authorized to witness CPR? How many people should be present while CPR is performed? How about the other family members? Who will look after them? Would additional relatives be willing to stay outside the resuscitation room with you?" All of these questions should be addressed with consideration for the culture of the responders.

A qualitative approach would reveal more information about what family members wish to accomplish while in the resuscitation chamber. Allowing FWR, for example, could affect the public's trust in the medical profession, according to Rosenczweig, however the manner in which this would occur was not specified. Other topics are expected to be examined more if a qualitative approach is used. Fulbrook stressed the importance of recognizing the differences in healthcare systems between countries, which can have an impact on outcomes. In addition, it was identified that the role of self-assurance in accepting or rejecting FWR be investigated.

They found that nurses' opinions toward FWR are unaffected by previous experience with the procedure. This finding differs from that of other studies, which found a link between a lack of experience with FWR and unfavorable or doubtful attitudes advocated for more research into the aspects that influence how people make decisions about the FWR. Many studies about FWR were evaluated by Redley. They claimed that FWR might infringe on a patient's privacy because there is a scarcity of information about ethical principles from the perspective of patients, these principles may be questioned.

Ardley, Boudreaux discovered that the majority of the

research used quantitative designs. These findings are consistent with other studies that analyzed numerous empirical investigations on FWR. However, it is agreed that this is insufficient rationale for choosing a qualitative approach. As a result, other flaws in using a quantitative technique to examine FWR should be identified. In general, quantitative research is thought to be reductionist. This means that using a quantitative approach will leave some variables unaddressed. As a result, using a qualitative method should provide a more holistic view of the subject under inquiry investigated the opinions of European Nurses that are saddled with the responsibilities of critical care concerning FWR.

Furthermore, some researchers acknowledged the influence of culture and religion on people's opinions toward FWR. These topics, in contrast require further investigation and debate. To do this, healthcare professionals and the general public must be encouraged to engage in open debate and free discussion on FWR. Most of the above problems could be explained by using a qualitative design [10].

Specific on FWR and Research Gaps

In the study of Axelsson, six studies were undertaken in the United States, four in the United Kingdom, one in Australia, and one in Sweden. Alhalaiqaa identified that only two studies were conducted from a Western point of view, and that all these studies may not have considered the views of emergency situation professionals. Also, none of them were conducted in Africa, and none of them supported FWR. However, cultural differences are expected to emerge inside Western countries as well examined the attitudes of critical care nurses concerning FWR in Europe. In their studies, they noticed that there were certain differences between British nurses and nurses from other European countries. Walker noted that the global movement to study FWR should focus on cultural differences not only between nations, but also inside the local and national healthcare systems.

Davidson also noted that the impact of spiritual and religious beliefs on patients' healthcare decisions has not been extensively investigated in the works of literature. This also implies that the impact of religion on people's opinions toward FWR was not sufficiently examined in literature. According to MacKenzie, noted highly religious and spiritual people believe in prayer and divine intervention to promote health, but they also seek healing and care from healthcare experts. According to Davidson, the severity of the illness has an impact on the patient's motivation to care spiritually and religiously. One of the most critical situations is CPR.

Furthermore, One conducted four studies in Turkey, and two studies in Singapore. Five of the studies looked at healthcare workers. Similarly, in all of these investigations, the majority of healthcare professionals were opposed to FWR. In a unique Asian study, roughly 73 percent of family members preferred FWR and believed it would help them

cope with their bereavement. It's crucial to note that all the six researches employed a survey research design.

This may impede your ability to achieve a wider understanding of the issue. This could also explain why there isn't much evidence about the impact of religion and culture on FWR in these researches. More crucially, the majority of these researches either used a survey that had already been used in a Western study or created their own survey questionnaire based on existing literature. This may limit the ability to attribute negative sentiments about FWR to specific cultural or religious factors. Four of the six studies listed above were conducted in Turkey. The majority of Turks are Muslims as well known. Turkey has closer connections with Arab countries. Some of these research suggested that religion and culture play a role in influencing healthcare professionals' opinions toward FWR. However, none of these researches looked into these difficulties in depth.

For example, Badir and Sepit in 2007 and Demir in 2008 suggested that cultural and theological factors could explain the disparity in attitudes between Turkish healthcare workers and their Western counterparts. However, the word "cultural differences" is used here in a broad sense without specifying what kind of cultural differences are being discussed. Nurses and doctors are likely to be opposed to FWR because they are afraid of being harmed by family members, particularly if the patient dies. Demir suggested that further research be done on the impact of cultural problems on people's attitudes toward FWR. Nigeria and Turkey do share significant parallels, particularly in terms of the majority of their populations being Muslims.

There are nevertheless, some distinctions between the two countries. In Turkey, for example, the general system is secular. At this time, the Turkish people follow the Western countries in that they distinguish between religion and other parts of life. In Nigeria, however, the situation is somewhat different. The Nigerian people incorporate religion into every area of their lives, though Nigeria's medical industry is not regulated based on the derivatives of Islamic religion. But there are some believes that shapes the mentality of Nigerian Muslims, for instance, they believe that life is a divine trust and Islam does not allow a person to die voluntarily. This implies that in Muslim countries, orders like "Do Not Resuscitate" (DNR) are controversial.

Sharp and Frederick observed that since 1998, all US acute and chronic care hospitals have been required to establish policies that affirm the patient's right to determine DNR orders. The United Kingdom and Australia have issued similar policies. In Muslim countries, the situation is considerably different. The DNR order is incompatible with Islam's principles. The Stopping supportive therapies when a patient is terminally or seriously sick then it is a contentious issue. It may be claimed that family members

would request to observe CPR in order to ensure that their loved one receives the finest possible treatment and that everything possible is done for them. All of the foregoing arguments illustrate that Western and Nigerian cultures have some cultural differences. It was also emphasized that there is a need to considering culture and religion while making healthcare decisions. An examination of the literature also suggests that other factors may influence people's perceptions toward FWR are education, training, and experience.

In the literature, the social dimension has also gotten a lot of attention. FWR implementation demands enough resources as well as a set budget. As a result, the economic component must be considered when starting any FWR endeavor. Furthermore, this study will be place in critical care facilities with high-tech environs. It is important to think about how modern technology will affect healthcare practitioners and their families. To take into account all of the preceding aspects, in addition to the fact that this study is unique in Nigeria, a conceptual or theoretical framework are required to better explain the function of all of these factors in forming people's opinions toward FWR. While looking for nursing theories, it was discovered that Leininger's cultural care theory might address all of these concerns. Furthermore, applying this theory is supposed to demonstrate the distinctions between Western and Nigerian cultures. This would aid in obtaining the advantages of the existing literature. At the same time, this hypothesis will not overlook Nigerian's unique characteristics.

Conclusion

Despite the fact that much has been published on FWR, it remains a difficult, debatable, and diverse topic. The findings of the earlier studies showed that there are overlapping ideas and perceptions about the predicted outcomes of allowing FWR. The bulk of these researches revealed that family members would desire to attend CPR for their loved ones. The majority of patients thought FWR was convenient and would help the resuscitated patient. Nonetheless, a few patients raised concerns about the impact of this presence on the competence of health personnel, and also on the impact on the resuscitated patient.

References

1. Al Azzam M, Al Bashtawy M, Tubaishat A, et al. Prevalence of attention deficit hyperactivity disorder among school-aged children in Jordan. *East Mediterr Health J.* 2017; 23(7): 48-6.
2. Al Azzam M, Al Bashtawy M, Aljezawi M, et al. Pattern of interaction and relationships between family members. *Int J Health Serv.* 2017; 5(1):45-47.
3. Al Bashtawy M, Alshloul M, Alkawaldeh A, et al. Looking at school nurses' roles in tackling overweight and obesity. *Br J Sch Nurs.* 2017; 9(8): 17-19.6
4. Al Bashtawy M, Al Qadire M, Aloush S, et al. Assessment of Headache among High School Students in Jordan. *J Sch Nurs.*2017.

5. Al Bashtawy M, Al-Azzam M, Rawashda A, et al. Workplace violence toward emergency department staff in Jordanian hospitals: a cross-sectional study. *J Nurs Res.* 2015; 23(1): 75-81.
6. Al Bashtawy M, Batiha AM, Tawalbeh L, et al. Self-medication among school students. *J Sch Nurs.* 2015; 31(2):110-116.
7. Alhalaiqa F, Al-Nawafleh A, Batiha AM, et al. A descriptive study of adherence to lifestyle modification factors among hypertensive patients. *Turk J Med Sci.* 2017; 47(1): 273-281.
8. Alhalaiqa F, Omari O, Wynaden D, et al. Adherence to Antipsychotic Drug Measured by an Arabic Version of Morisky Scale. *Issues Ment Health Nurs,* 2016; 37(12): 975-982.
9. Alhalaiqa F, Masa'Deh R, Batiha AM, et al. Validity of Arabic version of beliefs about medication questionnaire. *Clinical Nurs Res,* 2017; 24(5): 539-555.
10. Alhalaiqa F, Abu-shbeeb I, Batiha AM, et al. The Relation of Demographic Characteristics with Fatigue Levels among Coronary Heart Disease Patients: A Jordanian Study. *Adv Stud Biol.* 2015; 7(7): 301-322.]

***Correspondence to:**

Adetayo Olaniyi Adeniran
Department of Logistics and Transport Technology,
Federal University of Technology
Akure, Nigeria
E-mail: Aedhmanalavinejad68@gmail.com