Elderly Health Journal 2020; 6(2): 140-145
Shahid Sadoughi University of Medical Sciences, Yazd, Iran
Journal Website : http://ehj.ssu.ac.ir

Review Article

Definitions and Theories of Elder Abuse

Fardaneh Gholipour [1], Zahra Khalili [*2], Mehdi Abbasian [3]

1. Department of Nursing, Khalkhal Branch, Islamic Azad University, Ardabil, Iran
2. Department of Medical Surgical Nursing, School of Nursing and Midwifery, Ardabil University of Medical Sciences, Ardabil, Iran
3. Department of Health Education and Promotion, Faculty of Health, Tabriz University of Medical Sciences, Tabriz, Iran

[*] **Corresponding Author:** Department of Medical Surgical Nursing, School of Nursing and Midwifery, Ardabil University of Medical Sciences, Ardabil, Iran. **Tel:** +984533729332**, Email address**: khalili.nurse@gmail.com

[Downloaded from ehj.ssu.ac.ir on 2026-09-15]

[DOR: 20.1001.1.24236179.2020.6.2.9.9]
[DOI: 10.18502/ehj.v6i2.5022]

A B S T R A C T

Article history
Received 11 Aug 2020
Accepted 8 Dec 2020

Citation: Gholipour F, Khalili Z, Abasian M. Definitions and theories of elder abuse. Elderly Health Journal. 2020; 6(2): 140-145.

Old age is one of the most crucial stages of human development that encompasses the dynamics of biological processes, perception, growth and development and maturity, as a natural process of life. The elderly as one of the vulnerable groups, they face different biological, psychological and social needs. As the population gets older, the elderly will need more support in their daily activities, and these will put more pressure on family members. Failure of families to take care of the elderly as well as specific social conditions such as urbanization, modernization, change in traditional values, contradiction of the new and old generation value system, and failure to accept care of an elderly family enables the family to fulfill its role and duties. In such circumstances, the elderly may be at risk of domestic elder abuse. Elder abuse is in fact the intentional or unintentional behavior of the elderly, which may be of a physical, emotional or psychological nature and may cause complications such as unnecessary suffering, injury or physical pain, violating the human rights and impairing the quality of life of the elderly person. The present study aimed to provide definitions and theories of elder abuse.

Keywords: Theory, Elder Abuse, Aged

Introduction

Unfortunately, there is no standard definition of the concept of elder abuse which is accepted by everyone because the current definitions have been often presented according to the specific views and professional needs of researchers (1). For instance, the police definition of elder abuse is limited to its legal aspect. The employees of senior sanatoriums define the internal rules and protocols of senior sanatoriums, identify the victims, and the researchers make their definitions based on the available research tools (2). The first and most significant problem is the lack of a clear definition of the term "elder abuse" (3). The fact that the concept of elder abuse refers to a behavior or situation. Answering this question “what is the concept of elder abuse than the elderly?” is a controversial topic. Despite the fact that the phenomenon of elder abuse has been raised as a serious problem since the mid-1970s, there is still no standard definition for it (4). This phenomenon was defined and classified based on to the type of focus by researchers on the subject. Medical employees require a clear definition of the nature and concept of this phenomenon to identify and prevent elder abuse (5). Defining this phenomenon is still problematic because it is a complicated cultural issue. Cultural values, traditions, and beliefs affect the role of family members, responsibility, caring expectations, and dealing with elder abuse (6). Abuse is a cultural phenomenon reflecting a social distinction between acceptable and unacceptable interpersonal behaviors. It should be noted that understanding the acceptable behaviors vary from one society to another and from culture to another due to the variety of values and norms.

Copyright © 2020 Elderly Health Journal. This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/) which permits copy and redistribute the material just in noncommercial usages, provided the original work is properly cite.

[Downloaded from ehj.ssu.ac.ir on 2026-09-15]

[DOR: 20.1001.1.24236179.2020.6.2.9.9]

[DOI: 10.18502/ehj.v6i2.5022]

Definitions of elder abuse

Elder abuse is simply defined as misbehaving the elderly by those in a position of trust, power, or responsibility of caring the elderly. Elder abuse includes physical abuse, sexual abuse, financial abuse, psychological abuse, self-neglect, violation of rights, denial of privacy, and denial of participation in decision making (7). Based on the National Center on Elder Abuse in America (1998), abuse refers to any deliberate or undeliberate action by a caregiver causing serious harm or injury to an elderly person which may result in physical, sexual abuse, emotional abuse, financial abuse, abandonment, and self-neglect (8). Based on the World Health Organization (2002), elder abuse refers to consecutive acts repeatedly or the lack of an appropriate performance in relation to the elderly leading to injury, pain, distress, anxiety, and comfort deprivation of the elderly. It occurs as physical, psychological abuse, sexual abuse, financial abuse, and self-neglect (9). The National Center on Elder Abuse considers that elder abuse is a term which refers to any deliberate action or neglect by a nurse or any other person causing harm or a serious danger to a vulnerable adult (2). The Committee of Ministers and the European Advisers define elder abuse as any activity or lack of appropriate activity to the elderly occurring in the family or care centers and endangering the elderly person's life and his economic, physical and psychological security, independence, and personal progress (10). Somewhere else, elder abuse was defined abuse as a single repeated activity or lack of activity occurring in relationships where the elderly expects honest behavior while the caregiver harms them and make them sad (11). Pritchard classified abuse as physical, psychological, social, and legal forms. In other categories, abuse can be also grouped as active or passive. Active abuse includes insult, assault, and other kinds of aggressive violence while passive abuse includes harmful physical threats and induction of fear in the victim (12).

One of the panels held by the US National Academy of Sciences has raised useful words about elder abuse:

Deliberate actions cause serious injury or danger to the elderly and are performed by a nurse or a trusted friends of the elderly.

Failure to satisfy the basic needs of the elderly by the caregiver leading to injury, deprivation, and suffering in the elderly (8).

World Health Organization (2018): Elder abuse is one or several repeated actions or lack of actions occurring in a relationship where trust is expected and causing injury to the elderly. This kind of violence is a violation of human rights and involves physical abuse, sexual abuse, psychological abuse, emotional abuse, financial abuse, abandonment, self-neglect, as well as the loss of dignity and respect (13).

Types of elder abuse

The classification of elder abuse and neglect is different in various geographical areas and institutes. Abuse is a specific action which the person participates in consciously and causes harm to others; while neglect includes failure in treatment, care, personal belongings, and services which can also cause harm to others (14). Types of elder abuse include physical abuse, sexual abuse, psychological abuse, neglect, financial abuse, abandonment, and self-neglect which are discussed (9).

Physical abuse: Includes any use of power or force which results in physical injury, physical pain, or physical handicap. The behaviors like kicking, biting, pushing, shaking, slapping, pulling, pinching, and burning (15). In addition, taking inappropriate medicines, physical prohibition, and force in eating and physical punishment are among the types of physical abuse (16). The symptoms and signs of physical abuse include bruise around the eyes, brain damage, rupture, rope trace on body, bone and skull fractures, open wounds, cuts, punctures, untreated wounds, sprains, dislocation, bleeding, internal injuries, broken eyeglasses, over dosing, or the non-use of prescription, the elderly who have sudden behavior changes and the elderly who are not allowed to be visited alone (17).

Sexual abuse: Sexual contact with anybody without his consent is known as sexual abuse and includes unwanted touching or any kind of sexual beating such as rape, homosexuality, being forced to get naked, and the display of sexual photos (18). Sexual contact with any disabled person without consent constitutes is known as sexual abuse (19). The signs and symptoms of sexual abuse involve chest and genital injury, having no explanation for venereal diseases and genital infections, having no explanation for anal and vaginal bleeding, rupture or bleeding of the underwear, and the elderly reporting sexual assault (20).

Psychological abuse: Verbal or non-verbal imposition of mental pressure which may include verbal assault, insult, threat, intimidation, humiliation, harassment, elderly childish behavior, and the isolation of the elderly. The signs and symptoms of psychological abuse include emotional disturbance, lack of interest in speaking and exchanging ideas, neglect, abnormal behaviors such as (sucking, biting, shaking) and the elderly reporting verbal and emotional abuse (8, 21, 22).

Neglect: Failure in satisfying an elderly person's needs and requirements is called neglect which may include an elderly person's inability in caring or failure in providing life requirements like food, water, shelter, personal hygiene, medicines, convenience and comfort, personal safety, and other necessities which are essential for the elderly (22). The signs and symptoms of neglect involve dehydration, malnutrition, untreated bed ulcers, poor personal hygiene, neglected health problems, unsafe living conditions, lack of cleanliness (lice, insufficient clothing, urine and stool smell in the living place, dirty and filthy bed) (23,24).

Abandonment: Abandoning the elderly by the person who is responsible for taking care of the elderly or imprisonment by a caregiver. The signs and symptoms of abandonment include leaving the elderly

in hospitals and nursing homes, leaving the elderly in shopping malls or other public places, and the elderly reporting abandonment themselves (22).

Financial abuse: The illegal or inappropriate use of money, property, and stuff of an elderly person which may involve the use of money without permission, forged signatures, inappropriate use or theft of property, forcing the elderly to sign a document and the inappropriate use of guardianship or attorney (25, 26).

Theories on elder abuse

Researchers, policymakers, and service providers have raised different models and theoretical frameworks to describe the phenomenon of elder abuse during the past three decades. Some of these theories were adapted from the theories related to other types of domestic violence and compared elder abuse to children and women abuse which is an irrational comparison. Theories were typically made for explaining the observed data resulting from the description of a sample of elderly victims of abuse in a research (27). Most theories in the regard focused on the description of abusers, victims, their relationship, and cultural and social contexts (28). In fact, it can be said that the theories which examine the cause of elder abuse are categorized into four groups:

1) Elderly dependency
2) Learning violence
3) Personal problems of abuser and
4) Social attitudes such as ageism, sexism, abusive behavior to the disabled and greed (29, 30).

Social exchange theory

The theory of exchange considers the interaction and dependency between the victim and the caregiver. This theory believes that abuse can occur in the context of tactics and responses in family life. Most of us act according to a series of unwritten rules and have some exchange relationships between with others. These unwritten rules and expectations establish a balance between what we give and what we receive. When power balance is destroyed and a more powerful person controls others unjustly, the problems like anger for demand on care, personality conflicts, unresolved family problems, and perhaps increased risk of abuse will occur (10).

Feminist theory

The main idea of this theory is that direct and indirect social and economic processes work for supporting a specific social order and patriarchal family structure. This theory raises the unequal power of men over women as an effective factor in violence. Violence is the control method of men. In a culture where women are considered as second-class citizens, men use violence against women (31).

Political- economic theory

This theory states that the elderly people are gradually marginalized from the family and society due to increased age. Thus, they lose their role and become dependent on others. Based on this view, changing the role and reducing the work power as well as the independency of the elderly leads to elder abuse (32).

Psychopathology of the caregiver theory

The theory evaluates the role of caregiver with a mental health problem and how it may expose the elderly to abuse. Based on this theory, the behavioral traits of abusers are involved in elder abuse. This theory claims that excessive fatigue and stresses of the caregiver create an atmosphere for abuse. Caregivers' personal problems which can lead to elder abuse are caregiver stress, caregiver physical or mental illness, alcohol or drug in dependency caregiver, job loss or other problems and crises, elderly economic dependency, tendency to use violence by the elderly to solve problems, lack of care information and knowledge or skills, and social isolation of the caregiver (33).

Role accumulation theory

This theory suggests that the elderly may be abused by family members such as the spouse and the adult child (daughter/son) (34). Based on this theory, family members cannot manage life stress due to the contradiction of roles and tasks and choose elder abuse of as a way of coping with such a stress (35).

Situational theory

Situational theory is one of the first and most widely accepted theory on elder abuse (10). This theory focuses on the role of stress and caring load of the caregiver in abuse (36). The excessive caring load on the elderly caregiver and his incompatibility with this situation exposes him to an environment for elder abuse. In general, the caregivers' stress affects elderly abuse (37).

Social learning theory

This theory is known as intergenerational theory which states that those experiencing or witnessing violence in their family during their childhood will most likely use it in adulthood. Based on to this attitude, people learn how to behave while communicating with each other in society. Such an attitude refers to the role of family and peers in committing violence. Bandura claimed that most human behaviors are learned through observation and during the modeling process (35). Akers and Jennings also emphasized on learning deviant behavior mainly through reinforcement processes and its fundamental mechanisms, i.e. encouragement and punishment, and believed that continuing or stopping any behavior depends on encouragement or punishment; In other words, encouragement causes the continuation of deviant behaviors and is learned through interactions with others like other social behaviors. Learning theory believes that people learn violent behaviors by observation and if such behaviors are not punished and vice versa if they are encouraged, they will continue to grow. For example, a boy who sees his father beating his mother will more likely beat his wife in the future. Therefore, violence is learned due to being exposed to

[Downloaded from ehj.ssu.ac.ir on 2026-09-15]
[DOR: 20.1001.1.24236179.2020.6.2.9.9]
[DOI: 10.18502/ehj.v6i2.5022]

social values and beliefs on the roles of men and women and will be reinforced if appropriate punishment is not applied (38). Furthermore, Bandura believed that violence is learned under direct conditions (punishment and encouragement) as well as observations. From this perspective, the phenomenon of social learning is mainly the result of the experiences being formed according to partial learning and through observing the behavior of another person and its consequences. According to Bandura, children learn from their parents how to be violent. Observing and experiencing abuse from parents during the childhood leads to learning dominant behavior by men and learning tolerance by women. Therefore, one can learn whether randomly or consciously through the modeling process and in other words by observing others. Modeling is performed under the effect of multiple factors such as age, gender, and common situations and if the selected model is consistent with healthy values and norms, the person will learn how to adapt to normal daily life and threatening situations (39).

Stratification theory

Economic problems, unemployment, income shortages, frustration, and weak academic performance of elderly caregivers create stress and anxiety in the family and sometimes lead to violent behaviors (40).

Symbolic interaction theory

Based on this attitude, any contact with objects and humans and being present in an event has various meanings to the mind. The person uses these meanings to communicate with others. In other words, when we interpret the meanings of individuals, objects, and events in our minds, we are sure that this personal description in the future will emerge as a real happening. This theory includes the image of each individual from himself (35). The relationship of human with himself and others is a mirror of the symbol thathe individual has in his mind. Since the process of interpreting individuals, objects, and events is performed using intellectual and linguistic skills, it can be stated that there would be no sense of presence in society and among individuals without language and thought (36). One of the main concepts of symbolic interaction theory is meanings by which individuals form their relationships. When the members of a family do not interpret the meaning of another's behavior appropriately, the unpleasant feeling obtained from this interpretation will remain in him and will emerge while recommunicating with that person. For example, the elderly people interpret the fatigue caused by his caregiver as his dissatisfaction with caring, and on the other hand the caregiver attributes the elder's dissatisfaction to his ingratitude. Continuing this cycle will lead to elder abuse. In fact, based on this theory, elder abuse happens between the elderly and the caregiver (37).

Discussion

This study aimed to investigate the definitions and theories of elder abuse. Based on the reviewed theories, several factors including caregiver stress (situational theory; stratification theory), dependency (social exchange theory), negative attitude (political economic theory), environmental stress (role accumulation theory), learnt abusive behavior (social learning theory), caregiver pathology (psychopathology of the caregiver theory), and spousal domestic abuse (feminist theory) cause elder abuse. Additionally, according to symbolic interactionism theory, cultural values and expectations influence what behavior is considered abusive.

Table 1. Summaries of elder abuse theories

Theory name	Key element	Description
Social exchange theory	Dependency	Elder abuse is the result of an increased relationship between the elderly and the caregiver and vice versa.
Feminist theory	Patriarchal family	Elder abuse is the product of a patriarchal family.
Political- economic theory	Dependency	Changing the role of the elderly and eliminating them from the workforce decreases their independency and leads to abuse.
Psychopathology of the caregiver theory	Caregiver pathology	The behavioral traits of the abusers help elder abuse.
Role accumulation theory	Environmental stress	Family members with conflicting roles cannot effectively manage life stress; and these members may use elder abuse as a method for coping with their stress.
Situational theory	Caregiver's stress	A caregiver who cannot adapt the excessive demands and demands of the elderly creates a situation for abuse.
Social learning theory	Learned abuse	Violence is a learned behavior which can be transferred from one generation to another.
Stratification theory	Caregiver's stress	Low job satisfaction and low education level may be involved with elder abuse
Symbolic interaction theory	Culture	Cultural values and expectations affect the abuser's behavior

[Downloaded from ehj.ssu.ac.ir on 2026-09-15]
[DOR: 20.1001.1.24236179.2020.6.2.9.9]
[DOI: 10.18502/ehj.v6i2.5022]

Conclusion

Several theories were mentioned for explaining the cause of elder. Based on the examined theories, different factors which are listed in the results as the key element cause elder abuse. Thus, it can be concluded that elder abuse is a complicated and multifactorial problem which affects the elderly and the present study indicated that a theory alone cannot explain the cause of abuse.

Conflict of interests

The authors declare that they have no conflict of interests.

Authors' contribution

Khalili Z conceived and designed the study. All author collected the data and approved the final manuscript.

References

1. Dong XQ. Elder abuse: systematic review and implications for practice. Journal of the American Geriatrics Society. 2015; 63(6): 1214-38.
2. Lachs MS, Pillemer KA. Elder abuse. New England Journal of Medicine. 2015; 373(20): 1947-56.
3. Wang XM, Brisbin S, Loo T, Straus S. Elder abuse: an approach to identification, assessment and intervention. Canadian Medical Association Journal. 2015; 187(8): 575-81.
4. Mysyuk Y, Westendorp RG, Lindenberg J. Older persons' definitions and explanations of elder abuse in the Netherlands. Journal of Elder Abuse & Neglect. 2016; 28(2): 95-113.
5. Khalili Z. The prevalence of elder abuse and its related factors in Kashan [MSc. thesis]. Kashan: Kashan University of Medical Sciences and Health Services; 2015.
6. Yunus RM, Hairi NN, Choo WY. Consequences of elder abuse and neglect: A systematic review of observational studies. Trauma, Violence, & Abuse. 2019; 20(2): 197-213.
7. Cooper C, Selwood A, Livingston G. The prevalence of elder abuse and neglect: a systematic review. Age and Ageing. 2008; 37(2): 151-60.
8. Bonnie RJ, Wallace RB, editors. Elder mistreatment: Abuse, neglect, and exploitation in an aging America. Washington: National Academies Press; 2003.
9. Krug EG, Mercy JA, Dahlberg LL, Zwi AB. The world report on violence and health. The Lancet. 2002; 360(9339): 1083-8.
10. Soares J, Barros H, Torres-Gonzales F, Ioannidi-Kapolou E, Lamura G, Lindert J, et al. Abuse and health among elderly in Europe. Lithuanian University of Health Sciences Press; 2010.
11. Yon Y, Mikton C, Gassoumis ZD, Wilber KH. The prevalence of self-reported elder abuse among older women in community settings: a systematic review and meta-analysis. Trauma, Violence, & Abuse. 2019; 20(2): 245-59.
12. Pritchard J. Male victims of elder abuse: Their experiences and needs. London: Jessica Kingsley Publishers; 2001.
13. World Health Organization. Elder abuse [Internet]. 2019. Available from: https://www.who.int/violence_injury_prevention/violence/elder_abuse/en/.
14. Corbi G, Grattagliano I, Sabbà C, Fiore G, Spina S, Ferrara N, et al. Elder abuse: perception and knowledge of the phenomenon by healthcare workers from two Italian hospitals. Internal and Emergency Medicine. 2019; 14(4): 549-55.
15. Rosen T, Bloemen EM, LoFaso VM, Clark S, Flomenbaum NE, Breckman R, et al. Acute precipitants of physical elder abuse: qualitative analysis of legal records from highly adjudicated cases. Journal of Interpersonal Violence. 2019; 34(12): 2599-623.
16. Lachs MS, Pillemer K. Elder abuse. Lancet. 2004; 364(9441): 1263-72.
17. Roberto KA. The complexities of elder abuse. The American Psychologist. 2016; 71(4): 302-11.
18. Acierno R, Hernandez-Tejada M, Amstadter AB, Resnick HS, Steve K, Muzzy W, et al. Prevalence and correlates of emotional, physical, sexual, and financial abuse and potential neglect in the United States: the national elder mistreatment study. American Journal of Public Health. 2009; 100(2): 292-7.
19. Flores RJ, Campo-Arias A, Stimpson JP, Chalela CM, Reyes-Ortiz CA. The association between past sexual abuse and depression in older adults from Colombia. Journal of Geriatric Psychiatry and Neurology. 2017; 31(1): 13-8.
20. Curry SJ, Krist AH, Owens DK, Barry MJ, Caughey AB, Davidson KW, et al. Screening for intimate partner violence, elder abuse, and abuse of vulnerable adults: US preventive services task force final recommendation statement. The Journal of the American Medical Association. 2018; 320(16): 1678-87.
21. Yan E, Tang CS-K. Prevalence and psychological impact of Chinese elder abuse. Journal of Interpersonal Violence. 2001; 16(11): 1158-74.
22. Duke Han S, Olsen BJ, Mosqueda LA. Elder abuse identification and intervention. In: Ravdin L., Katzen H, editors. Handbook on the Neuropsychology of Aging and Dementia. Clinical Handbooks in Neuropsychology. Springer; 2019. P 197-203.
23. Lachs MS, Pillemer K. Abuse and neglect of elderly persons. New England Journal of Medicine. 1995; 332(7): 437-43.
24. Adigun OO, Mikhail, AG, Krawiec C, Hatcher JD. Abuse and neglect [Internet]. Treasure Island: StatPearls Publishing; 2019. Availabel from: https://www.ncbi.nlm.nih.gov/books/NBK436015/
25. Lee S. Financial elder abuse: a (Dis) confirmatory analysis. 18 May 2019. Available From: https://ssrn.com/abstract=3391674
26. Van Den Bruele AB, Dimachk M, Crandall M. Elder abuse. Clinics in Geriatric Medicine. 2019; 35(1): 103-13.

[Downloaded from ehj.ssu.ac.ir on 2026-09-15]
[DOR: 20.1001.1.24236179.2020.6.2.9.9]
[DOI: 10.18502/ehj.v6i2.5022]

27. Morris J. Elderly Abuse. Murray State University; 2019. Available From: https://digitalcommons.murraystate.edu/cgi/viewcontent.cgi?article=1201&context=bis437
28. Aitken L, Griffin G. Gender issues in elder abuse: London: Sage; 1996.
29. Roberto KA, Teaster PB. Theorizing elder abuse. Elder abuse. In: Dong X, editors. Elder Abuse. Springer; 2017. P 21-41.
30. Barbara Berkman D, Harootyan L, editors. Social work and health care in an aging society: education, policy, practice, and research. Springer Publishing Company; 2003.
31. Moore S. The relativity of theory: applying theories of social psychology to illuminate the causes of the abuse of older people in care homes. Journal of Adult Protection. 2019; 21(2): 89-110.
32. Minkler M, Estes CL. Readings in the political economy of aging. Routledge; 2019.
33. Abolfathi Momtaz Y, Hamid TA, Ibrahim R. Theories and measures of elder abuse. Psychogeriatrics. 2013; 13(3): 182-8.
34. Henderson D, Buchanan JA, Fisher JE. Violence and the elderly population: Issues for prevention. In: Schewe PA, editor. Preventing violence in relationships: Interventions across the life span. American Psychological Association; 2002. P 223–45.
35. Haggerty KL, Griffith J, McGuire J, Molnar B. Elder mistreatment and social network composition: an exploratory study. Social Networks. 2019; 59: 23-30.
36. Fulmer TT, O'Malley TA. Inadequate care of the elderly: a health care perspective on abuse and neglect. Churchill Livingstone; 1987.
37. Carp FM. Elder abuse in the family: an interdisciplinary model for research. New York: Springer Publishing Company; 2000.
38. Akers RL, Jennings WG. The social learning theory of crime and deviance. In: Krohn M., Hendrix N., Penly Hall G., Lizotte A. (eds) Handbook on Crime and Deviance. Springer; 2019. P113-29.
39. Walker K, Bowen E. The Psychology of Intimate Partner Violence and Abuse. In: DLL, Day A, Hollin CR, editors. The Wiley International Handbook of Correctional Psychology. John Wiley & Sons, Incorporated; 2019. P 206-20.
40. De Donder L, Van Regenmortel S, Lambotte D, De Witte N, Verté D. Elder Abuse and Mistreatment in Flanders: Prevalence and Prevention. In: Shankardass M. editor. International Handbook of Elder Abuse and Mistreatment. Springer; 2020. P 295-309.

[Downloaded from ehj.ssu.ac.ir on 2026-09-15]
[DOR: 20.1001.1.24236179.2020.6.2.9.9]
[DOI: 10.18502/ehj.v6i2.5022]