

CHAPTER 9

Impact of Daily Stress on Youth and How to Cope with It

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Introduction

Life is filled with a never-ending array of challenges, some of which according to Edlin and Golanty (2012) present themselves as obstacles to accomplishing necessary daily tasks or life goals. Also, experiences have shown that other challenges provide opportunities for positive and unplanned life changes. Some other writers have also explained that life requires constant adjustment, be they major or minor, to our ever-changing environment and selves (Byer and Shainberg, 2011). Generally speaking, each day presents us with new opportunities and challenges. Maintaining our physical and mental health requires countless adjustments, and how successfully we adapt depends largely on how we view our challenges. Those who enjoy positive emotional health see most changes as interesting, exciting, and as offering opportunities. These people can cope with even the more unfortunate changes in their lives.

When confronted with a particular challenge, we may experience negative feelings in the form of anxiety, sadness, depression, anger, or fear that may cause such symptoms as sleeplessness, gastrointestinal upset, headache, or muscular tension. These symptoms signal a disruption in our state of psychobiological balance and our stress response. Usually, this disruption is brief, for our well-being is restored when we find ways to meet the challenge. Most of the time, confronting and resolving a challenge becomes a positive growth experience. Other times, however, disruption in mind-body harmony is prolonged or severe, and we are said to be "under stress" or "stressed out". Prolonged, unresolved stress situations can contribute to the development of several kinds of stress-related disorders.

Purpose of this Paper

The purpose of this paper is to examine the daily impact of stress on youth and how to manage it. Specifically, this paper seeks to:

1. explain the concept of stress and stressors, how our body expresses to us that we are under stress,
2. examine why negative and positive forms of stress can affect us differently under various conditions and at various times in our lives;
3. x-ray the basic physiology of stress and how constant stressful activity can lead to burnout,
4. examine how stress is related to psychosomatic illness, and

5. identify several methods for coping with stress, including stress management such as relaxation techniques and physical activity.

Concept of Stress and Stressors

Although most people have had experiences that they would consider as being "under stress" or "stressed out" it is important to recognize a significant difference in how the word stress is used in these two expressions. The phrase "under stress" refers to the cause of the disruption of psychological and physiological balance, as in the example, "He was under stress from having to suffer from two different types of communicable disease at a time".

"Stress out" on the other hand, refers to the consequences of a particularly stressful situation, as in the example, "During the semester examinations, he was so stressed out that he suffered from stomach cramps, diarrhoea, and insomnia". Because it is confusing to use the word stress to represent both the cause and results of challenging or disruptive life experiences. The term stressor refers to circumstances and events that produce disruptions in mind-body harmony. More clearly, the term stress refers to those symptoms resulting from stressors (Edlin and Golanty, 2012). From another perspective, stress can be defined as "a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being (Folkman, 2014).

Selye (2016) had earlier defined stress as "non-specific response of a body to any demand made upon it". Although, according Selye, each demand is unique or specific, each call for adaptations by the body. Mullen, Gold, Belcastro and McDermott (2013) refer to this demand for readjustment as non-specific, Selye further states that whether we consider a demand or situation to be pleasant or unpleasant, each demand requires us to readjust or adapt, thus creating the stress response. Selye's description of stress depicts three key points:

1. that stress is the "reaction" or mobilization of bodily resources in response to a stimulus,
2. that there is mobilization of resources for adaptive or adjustment purposes, and
3. that the stimulus can be pleasant and desirable or unpleasant and undesirable.

At this point it is necessary to explain more the concept known as stressors, which is the stimulus or agent that elicits the stress reaction, each day you encounter a variety of oppressors with a range of intensity. There are different types of stressors, which include: social stressors such as noise and crowding, psychological stressors (i.e. a new girl or boyfriend, a new job, an unreasonable teacher, getting married, etc.); Biochemical or physical stressors (i.e. injury, intoxicants - alcohol and drugs); Philosophical stressors which result from value system conflict or an inability to decipher direction and or purpose to your life. These categories of stressors are not exhaustive, but they illustrate that in each of our lives there are numerous potential triggers for eliciting stress. Byer and Shynberg (2011) see change as one of the most powerful stressors. In their view, any kind of change in our lives, even a positive one requires us to adapt to a new set of circumstances. Getting married, getting divorced, entering a university, or graduating from the

university all require us to adapt, and so are all stressors. Even winning several millions of naira in a lottery draw or getting a promotion requires adapting to a new status and so are stressors. The effect of stressors according to them are cumulative. Hence, the more stressors we have in our lives at any given time, the higher our stress level will be.

The Physiology of Stress

Since stress is the body's response to stimulus, an unanticipated disruptive or stimulating event, it involves interaction between the brain and subsequent reactions throughout varying organs of the body. These are complex reactions that maintain the homeostasis of body equilibrium. The maintenance of body equilibrium involves coordinated processes that keep the body from deviating so far from the norm that illness, disease, or death might result. For adequate homeostasis of the body, there is a need for the physiology of the stress response. There are two major pathways in the body through which stress response occurs, namely: the endocrine system and the central nervous system (CNS). The secretion of the endocrine and the stimulation of the CNS are responsible for the following manifestations which every one of us recognizes when under stress, namely: increased heart rate, increased breathing rate, increased perspiration, and so on.

The stress response is controlled by the hypothalamus of the brain. The hypothalamus is an important link between mental and physical function and constantly adjusts numerous body functions according to our emotional state (Byer and Shain Berg, 2011). It produces the stress response by the way it regulates the pituitary gland and the autonomic nervous systems.

The endocrine system pathway (The pituitary gland).

As soon as a stressor is perceived the outer layer of the brain transmits certain chemical messages to the hypothalamus. The hypothalamus then releases a hormone called corticotrophic releasing factor (CRF), whose function is to activate the pituitary glands. The pituitary glands, when stimulated by CRF, secrete another hormone, called adrenocorticotrophic hormone (ACTH), into the general body circulation. The ACTH now in the blood system circulates to its target which is the adrenal glands. These adrenal glands are stimulated to release hormones that: increase blood pressure, speed the pulse, increase blood sugar level, speed the metabolism of protein and fats, affect mineral balance, cause thirst, and have many other effects. Other stress-related changes in pituitary hormone levels affect the functions of ovaries and testes, milk production (lactation), growth in the children, and the function of the thyroid.

The nervous system pathway

The hypothalamus of the brain also regulates the autonomic (involuntary) portion of the nervous system. Autonomic nerves control glands and involuntary muscles such as the heart, blood vessels, and digestive system. There are two opposing branches of the autonomic nervous system,

they are the sympathetic nervous system and the parasympathetic nervous system, and their effects are contrasted.

The sympathetic nervous system is mobilized by emotions such as fear and anger and prepares the body for emergency action. The parasympathetic nervous system, mobilized by a feeling of well-being, acts to restore and conserve energy. The balance of power of two branches varies from moment to moment as our emotional state fluctuates. Activation of the sympathetic nervous system is an important part of the stress response, especially in the alarm reaction. Prolonged high levels of sympathetic activity can be quite damaging according to Byer and Shainberg (2011). It can contribute to heart disease, ulcers, sexual difficulties, and other health problems. By becoming familiar with these signs, we can recognize when our sugar level is adversely affecting our physical selves and we can apply some stress management techniques to reduce the amount of sympathetic activity.

Sympathetic Versus Parasympathetic Nervous System

S/N	Sympathetic Nervous System	Parasympathetic Nervous System
1	Activated by fear, anger, anxiety, and hostility, and so on.	Activated by the sense of well-being
2	Acts to prepare the body for emergency action (fight or flight). Diverts blood from internal organs to muscles of movement.	Acts to restore and conserve energy
3	Speeds pulse	Slows pulse
4	Raises blood pressure	Lowers blood pressure
5	Causes cold sweat	No opposite effect
6	Shuts off most digestive juices, causing dry mouth and indigestion. Stomach acid is not shut off, accumulates, and contributes to ulcers.	Stimulates digestion
7	Blocks out male and female sexual arousal. Stimulates male ejaculation, making control difficult.	Produces sexual arousal.

Adapted from Byer and Shainberg (2011).

Stages in the General Adaptation Syndrome (GAS)

The stress response includes hundreds of measurable physiological changes, that Selye (2016) referred to as the General Adaptation Syndrome (GAS). Selye emphasizes that all stressors result in essentially the same response and that the GAS is thus the response to any stressor which has three stages:

- (1) alarm reaction, (2) age of resistance; and (3) stage of exhaustion

The alarm reaction

The alarm reaction is our immediate response to a stressor. This reaction is the fight or flight response which prepares the body for emergency action. It is during the alarm stage that people experience the typical signs and symptoms of the stress response, heart rate, and blood pressure increases, low digestion, and blood moving from other organs to the body muscles. The body responds with increased alertness and activation of the sympathetic nervous system and the body is geared up to deal with the stressor. During the alarm stage, general resistance to diseases is increased. Bruess and Richardson (2014) have listed other fight or flight responses which occur as follows:

1. a sharp increase in blood sugar (to increase availability of oxygen);
2. an increase in the blood sugar (energy for the muscles);
3. quick conversion of glycogen (store carbohydrate) and fats into energy;
4. Increase respiration (to increase availability of oxygen)
5. increased muscle tension (quick tension for greater strength);
6. pupil dilation (visual acuity)
7. release of thrombin (blood clotting hormone to resist wounds);
8. suppression of digestion (to give the body full reaction capacity)
9. release of cortisone (to resist allergic attacks and dust);
10. release of thyroid hormone (speed up the body's metabolism for energy);
11. release of endorphin (body's painkiller) and
12. release of cholesterol in the blood (long distance fuel).

Some of the more Common Signs and Symptoms of Stress are:

S/N	Emotional	Cardiorespiratory	Muscular	Gastrointestinal
1	Forgetfulness	Heart pounding	Shaky hands	Stomach upset
2	Nervousness	Cold, sweaty hands	Back pain	constipation
3	Worrying	Headaches	Tension	Diarrhoea
4	Difficulty in sleeping (insomnia)	Shortness of breath	Headaches	
		Rapid breathing	Stiff muscles, twitches	

Adapted from Mullen et al. (2013)

World Health Organization (WHO) (2016) gave yet another typology of signs and symptoms of stress as follows: in the mind, body, behavior, and relationship with other people.

Symptoms of Stress in the Mind

- Anxiety or getting angry easily
- Sadness, Crying, or feelings of helplessness
- Moods that change quickly

- Poor concentration, needing to be told things several times before understanding and remembering them.
- Thinking about the same things again and again.

Symptoms of Stress in the Body

- Tiredness
- Headache
- Tense Muscles
- Palpitations of irregular heartbeat
- Feeling as though one cannot get enough air
- Nausea (feeling sick) or pains in the abdomen
- Poor appetite
- Vague pains, for example in the arms, legs, or chest
- Disturbed monthly cycle in women

Symptoms of Stress in Behaviour

- Reduced activity, no energy
- Over activity and inability to rest (restlessness)
- Taking alcohol or drugs such as Indian hemp to relieve tension
- Difficulty in concentration on one task
- Sleep problems (reduced or disturbed sleep, too much sleep or sleep during the day)

Symptoms of Stress in relationship with other people

- Lack of emotion
- Argument and disagreement
- Too much dependence on others for decisions and support

The State of Resistance

After the initial alarm stage of the GAS, our stress level to a lower, more sustainable level. This is the stage of resistance which is characterized by a rebound effect aimed at resisting the stressors, we have an increased long-term ability to tolerate stressors. The body attempts to adapt to the stressor and to return to a balanced state of functioning. When there is a successful adaptation. There is an increased level of resistance to disease and the disappearance of the alarm phase. If, however, our stress level is too high or too long, we progress to the third stage, the stage of exhaustion. It is only under extreme conditions do most people enter this third stage.

Stage of exhaustion

High-stress levels consume considerable energy and create physiological conditions that, if prolonged, exhaust our resistance to stressors. In this stage, the body once again experiences the symptoms of the stress response, and illness is likely to occur. The immune system becomes less effective, increasing our susceptibility to infectious diseases and cancer. Selye (2016) emphasize that any one stressor has the potential to exhaust resistance to all stressors.

Thus, people in a state of exhaustion often suffer complete physical and mental collapse.

Eustress

Despite all of the negative things we hear about stress, it is not always harmful. On the contrary, the human mind and body function best under a moderate amount of stress. Selye defined the way we react to stress as either "Eustress" or "Distress" (Hoeger and Hoeger, 2012). Eustress according to Selye (2016) is a term used to describe stress as a beneficial force. It is a desirable stress that is used to maintain life. Eustress prepares the mind and body for optimum functioning. It includes the life events in which the individual is taxed, challenged, and perceives a potential for personal growth. An example of eustress is an athlete or a performer getting ready for a competition or performance and doing a specular job. Another example is when a student studies for an examination and does well on it.

Distress

Distress is stress that has harmful effects. Generally, distress is used to mean too much stress at a given period. Broadly speaking, distress is experiencing too many stressors in a short time. it may also be too many stressors over a long of time, exceeding your ability to cope effectively and remain in control. Intense, prolonged, and unrelenting stress carries with it the potential to wear the mind and body down, affect system and organ functioning, and upset physical and psychological balance. Many people who have not learned effective stress management techniques live with very high-stress levels day after day.

Stress Related Disease

Most researchers agree that stress is associated with psychosomatic diseases. A psychosomatic illness is a physical disorder that has its origin in or is worsened by psychological or emotional processes. In other words, in psychosomatic illness, the mind causes and worsens an illness in the body. Psychosomatic diseases are of two types: psychogenic psychosomatic disorder (PPD) and somatogenic psychosomatic disorders (SPD), Psychogenic psychosomatic disorders are structural and functional disorders, for instance, migraine headaches, ulcers, asthma, backaches, and skin reactions that result from emotional stress (Girdano & Everly, 2016). Somatic psychosomatic disorders, such as cold or coronary heart disease, result when the body's resistance is reduced by emotional stress. SPD acts as a catalyst for some already present organic diseases, such as cancer or arthritis perhaps accelerating their growth. Stress, by modifying almost every body function is capable of producing illness in several ways. The following psychosomatic

conditions have been related to stress: heart disease, infectious diseases, cancer, diabetes mellitus, and digestive disorders.

Stress and Heart Disease

Stress contributes to heart disease in many ways. During the period of stress, one's blood pressure rises and pulse increases, placing an added burden on the heart. Stress induces changes in blood chemistry, such as elevated cholesterol levels promote arteriosclerosis. Finally, the coronary arteries that supply blood to the heart muscle itself constrict, reducing the amount of oxygen available to the heart muscle.

Stress and Infectious Diseases

Excessive stress reduces the effectiveness of the immune mechanism and thereby increases one's risk of infectious disease. Dentists, for example, have long recognized that gum infections are associated with highly stressful periods of people's lives (Porth, 2016). Similarly, it has been proved that both oral and genital herpes attacks tend to develop during periods of high stress. Also, many people find that they experience colds mostly during stressful periods. Finally, the relationship of stress to meningitis is well-established (Byer & Shainberg, 2011). Related infectious diseases are the stress that is believed to impair the body's immunity by raising the level of the adrenal hormones, such as epinephrine. This damages the immunity-producing lymphocytes.

Stress and Cancer

Such factors as viruses, chemicals, and radiation are suspected of causing cancer, or the rapid and abnormal growth of cells. However, there is a growing belief that stress also may play a role. Accordingly, it is believed that cancerous cell growth occurs in all of us, but since our immunological system destroys these cells before they can multiply, most of us do not develop cancer. Likewise, it is suspected that a lowering of one's immune defenses by stressors will allow such cancerous cells to multiply. Mcquade and Aikman (2015) in discussing one theory submitted that stress helps to cause cancer because it depresses the immune response, the body's only real means of defending itself against malignant cells. It does this through the actions of the adrenal cortex hormones, which particularly affect the T-lymphocytes, part of the white blood cells.

Furthermore, some have theorized that the blood's increased thickness, a result of stress, causes deposits of protein to form on the walls of blood vessels which may snag passing cancer cells. The cells then take up residence and begin to grow in the surrounding tissues.

Stress and Diabetes Mellitus

Stress has the effect of increasing sugar levels in the blood. Because the body is preparing to respond in some physical manner "fight or flight" when stressed, the sugar is designed to provide energy for either of these two reactions. It has been established that chronically high levels of

blood sugar brought about by chronic stress will diminish the ability of the pancreas to develop adequate insulin deficiency, and this is diabetes mellitus.

Stress and Digestive Disorders

The sympathetic nervous system, which is activated during periods of stress, reduces the production of most digestive juices, except for stomach acid. Because of this, food lies in the stomach, the acid builds up in response to the presence of the food indigestion. With time, this acid can weaken or erode the wall of the stomach or intestine, causing ulcers. Indigestion is a very common sign of excessive stress. Besides, many people overeat or under-eat during stressful periods. Other conditions in which stress is suspected of being a factor include migraine headaches, stroke, allergies, asthma, thyroid malfunction, diarrhea, and mental illness.

Coping with Stress

The way people perceive and cope with stress seems to be more of a factor in the development of disease than the amount and type of stress itself. An individual who considers stress a definite problem in their lives, because it interferes with their optimum level of health and appearance, might benefit from stress management techniques designed to improve coping ability.

1. The first step, of course, is to recognize that there is a problem. Many people either do not want to believe they are under too much stress or do not recognize some of the typical symptoms of distress. Consciously taking note of some of the stress-related symptoms will help a person respond more objectively and enable a good coping response.
2. Secondly, people who get stress-related symptoms should try to identify and remove the stressor or the stress-causing agent. This according to Hoeger and Hoeger (2012) is not as simple as it may seem, because eliminating the stressor may not be possible, or a person may not even know the exact causing agent. If the cause is unknown, it may be helpful to keep a log of the time and days that transpire before and after the onset of the symptoms. For instance, a story was told by a psychiatrist of a married woman who complained of nausea and a lot of abdominal pain every evening around six o'clock. After seeking professional help, the couple was instructed to keep a log of daily events. It soon became clear that the symptoms were absent on weekends and instead set in just before the husband came home from work during the week. Following some personal interviews with the couple, it was determined that the wife felt a lack of attention from her husband and subconsciously responded by becoming ill to the point where it required personal care and affection from her husband. So, once the stressor is identified, appropriate behavior changes can be initiated to correct the situation. In many instances, however, the stressor cannot be removed, but stress can still be managed through appropriate techniques.
3. A third means of consciously coping with stress is the task-oriented form of coping which requires objectively evaluating a stressful situation and then devising a plan to solve the problem. Morris and Glaros (2017) have described three basic approaches to task-oriented coping, namely: attack, withdrawal, and compromise.

Byer and Shainberg (2011) have also referred to a similar approach as fight-or-flight.

- i. In attack (fight) we face the problem head-on, by surveying and determining an effective course of action. For example, if we find that a particular person (friend, relative, boss or teacher) is causing our stress, we confront that person, explain our feelings, and ask him or her to change the behavior that is causing our discomfort. This approach very often succeeds. Sometimes, however, it becomes obvious that the attack approach is not going to work. We have talked to the person causing us discomfort several times and nothing has changed.
- ii. Now, we must consider withdrawal (flight). We admit defeat, leave the situation, and establish a new direction (Greenberg and Dintiman, 2012). We may have to break off a relationship, quit a job, move, or drop a course. If we have made our best effort according to Carrol and Miller (2011), by attacking a problem head there is nothing wrong with choosing withdrawal
- iii. The third approach which is a compromise, involves readjusting our goals or the means of obtaining these goals. Stress reduction is often a matter of compromise. Without some compromises, we cannot solve many of the problems that cause stress and anxiety. This is certainly true in our relationship with other people. Some people feel they are sacrificing their pride if they make compromises, however, the inability to compromise is more likely the result of inadequate self-esteem. Secure people can make compromises without feeling that they have lost face or sacrificed their pride.

Stress Management Techniques

Stress management entails setting up roadblocks so that the progression to the illness or disease level does not occur. If we could eliminate or block potentially distressing life situations, the journey toward illness or disease levels would never begin. Of course, the submission of Greenberg and Dintiman (2012) that this is not only impossible but also undesirable because life would be extremely dull if we did not have changes that require adaptation or adjustment.

On the other hand, there are numerous adjustments that we all could make in our lives to eliminate unnecessary stressors. Can you think of some stressors you could eliminate in your life? Some stressors will move from the level of a new or changed situation to the next level of perception, so the stress management techniques we use are related to our perceptions of these stressors in question. One way to perceive a stressor as less distressing is to find and focus on the positive component of the situation.

General Guidelines for Stress Management among Youth

1. Adopt a new way of looking at life. Stress management begins with adopting the philosophy that you as an individual, are responsible for your own emotional and physical and physical well-being. You can no longer allow all people to determine whether or not you are happy. You have little control over the behavior of anyone but yourself, and your emotional well-being is too important to trust anyone but yourself.

2. Maintain a positive outlook on life. This is very necessary for successful stress management. Your perception of events, not the events themselves, is what causes stress. Almost any life situation can be perceived as either stressful or non-stressful depending on your interpretation. A negative view of life guarantees a high stress level. People who constantly view life negatively can recondition themselves to be more positive. One way is by applying a thought-stopping technique: somebody who catches oneself thinking negatively should force oneself to think about the positive aspects of his or her situation.
3. Develop and maintain an exercise programme. Exercise is an excellent tension reliever. In addition to the physical benefits, exercise is also good for the mind. Participating in at least three aerobic exercise sessions a week for at least 20 minutes each day can greatly reduce stress. Unfortunately, some people exercise so much that the tension-relieving programme turns out another source of stress. The greatest source is competition in whatever form.
4. Be reasonably organized. Disorganization, sloppiness, chaos, and procrastination may seem very relaxed, but they are stressful. Set short-term, immediate-term, and long-term goals for yourself. Every morning assign priority to things you would want to accomplish each day. Take care of the most important ones first. Be realistic and do not expect too much of yourself. Perhaps, some low-priority items do not have to be done. If you are so disorganized, that you cannot locate items where you kept them, then you are increasing your stress.
5. Learn to say No. some people accept too many responsibilities. If you spread yourself too thin, not only will you be highly stressed, but important things will be done poorly or not at all. Know your limits and be assertive. If you don't have time to do it, don't. Practice 'No' effectively. Nobody has existed who can do it all.
6. Don't be a perfectionist. Perfectionists set impossible goals for themselves, because perfection is unattainable. Read your excellently written paper or letter and see if you will find nothing to correct, so learn to tolerate and forgive both yourself and others. Intolerance of our imperfections leads to stress and low self-esteem while intolerance of others leads to anger, blame, and poor relationships, all of which increase stress.
7. Be other- centered. Find things other than yourself and your achievements to care about and believe in. Self-esteem and a sense of purpose in life come from dedication to people, relationships, ideas, and values. Learn to see the world and yourself through the eyes of others. Interpersonal relationships are less stressful when we understand others' viewpoints. Become a volunteer. Helping others reduces stress by boosting self-esteem and putting our problems in a different perspective.
8. Let go of the past. Everyone can list things that he or she might have done differently in the past. Other than learning through experience and trying not to make the same mistakes again, there is nothing to be gained by worrying about what we did or did not do in the past. To focus on the past is non-productive, stressful, and robs the present of its joy and vitality. However, psychotherapy that explores' one's past to understand the present

behaviors and attitudes is not included in this guideline, because, such directed examination of one's past can be quite productive.

9. Eat a proper diet. How we eat affects our emotions and our ability to cope. When our diet is good, we feel better and deal better with our difficult situations. You may try this by eating more carefully for two weeks and feeling the difference it makes. There is no unique stress reduction diet, despite many claims to the contrary. The same diet that helps prevent heart disease, cancer, obesity, and diabetes (low in sugar, salt, fat, and total calories; adequate in vitamins, minerals, and protein) will also reduce stress.
10. Do not depend on alcohol and other drugs for stress reduction. The use of alcohol and other drugs to reduce stress levels contributes to stress in several ways. As alcohol and other drugs wear off, the rebound effect makes the user feel very uncomfortable and stressed. Also, heavy use of alcohol or other drugs invariably creates problems that further increase stress levels. Eliminating or minimizing alcohol and other drug use is essential in stress management.
11. Ensure you have adequate sleep. Sleep is essential for successfully managing stress and maintaining your health. People have varying sleep requirements, but most adults function best with seven to eight hours of sleep per day. Some people simply don't allot enough time to sleep, while others find that stress makes it difficult for them to sleep.

References

- Bruess, L., & Richardson, F., (2014). Suicide prevention: A public health policy approach. *OMEGA*, 8, 230 – 240.
- Byer, Z., & Shynberg, P., (2011). Death education. St. Louis: New York: Facts on File.
- Carol, G.M., & Miller, C.T., (2011). Serious poisoning among older adults. Geneva: *Handbook for middle class health workers*
- Dintiman, G.B., & Greenberg, J.S. (2012). Health through discovery. Reading: Addison- Wesley Publishing Company.
- Edlin, K. & Golanty, M. (2012). Suicides. New York: Basic Books.
- Folkman, T.A. (2014). How to go on living when someone you love most dies. New York: Bantam Books.
- Girdano, P., & Everly, B.W., (2016). *Psychology of death*. New York: Springer Publishing Company.
- Hoegerv, K.U., & Hoeger, T.R., (2012). Prevention: the care of the bereaved. *Suicide and Life Threatening Behaviour*, 2 (6) 138 – 147.
- Mcquade, S.A., & Aikman, D.K., (2015). Gender and age differences in suicide roles in a Canadian Province. *Suicide and Life-Threatening Behaviour*, 8, 124 – 130.
- Morris, R.U., & Glaros, S.M., (2017). Deaths of man. New York: *Journal of Suicidal Ideation and Murder*. 7. (5) 78 – 93.
- Mullen, K.U, Gold, M.J., Belcastro, V., & Mcdermott, O. (2013). Suicide in childhood and early adolescence. *Journal of Child Psychology and Psychiatry*, 17, 205 – 210.
- Porth, G.K., (2016). Epidemiology of Suicidal behaviour. *Archives of General Psychiatry*, 16, 56 – 62.
- Selye, E.S. (2016). *Handbook of suicidology*. New York: Brunner/Mazel.
- WHO (2016). Comparison of mortality from suicide. *Statistical Bulletin*, 84, 56 – 60.