

Institute for Christian Teaching
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**TRANSTHEORETICAL MODEL AS APPLIED TO
ADVENTIST HEALTH BEHAVIOR CHANGE AMONG
UNIVERSITY STUDENTS**

by

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I. INTRODUCTION

A. Background

The change process is complex and interesting. Health education and health promotion are concerned about changes that can occur at the level of the individual, the organization, the community, or the government. Many theoretical and conceptual approaches have been developed to help explain health behavior and the methods that foster health behavior change. Health Educators are challenged to develop learning experiences that motivate learners to change their health behaviors. The Transtheoretical Model is now one of the most widely used models of health behavior. Christian teachers have equally adopted the theory in encouraging Adventist health behaviors as well as enhancing academic performance.

The Adventist philosophy of education is the integration of faith and learning. Thus, the purpose of this essay is to introduce and adopt the Transtheoretical Model to change students' Christ-like attitudes and actions. I want to focus specifically on Adventist health behaviors called the Seventh-day Adventist Church natural remedies to promote health and to prevent disease. Disease, suffering and death were not part of God's original plan nor will they be present when God's original plan is restored (Isaiah 65: 25; Revelation 21: 4). In addition, I want to examine the Seventh-day Adventist Church natural remedies from the Biblical perspectives.

B. Definition of Health

Many people think of good health, which is the absence of disease, pain, and disability. Or they consider health in terms of vitality - being able to function with vigor. Or they think of longevity. Being without illness, pain and disability, having vitality, and living long are part of good health. But health is more than this.

The Definition of Health

According to the definition of World Health Organization (WHO, 1978), health represents "complete physical, mental, and social well-being and not merely the absence of disease and infirmity." Recent definition of health adds two aspects-emotional and spiritual well being as holistic health, which look at the whole person rather than the parts (Williams and Knights, 1995). The view of *holism* can be found in Genesis 1: 27 – "God created man in

His own image.” Seventh-Day Adventists believe that each human being is a union of the body. Spirit, which “function in close cooperation, revealing an intensely sympathetic relationship between a person’s spiritual, mental and physical faculties. Deficiencies in one are will hamper the other two.”(Seventh-day Adventist Believe..., 1988. p 84).

Satan is the originator of disease. Following Satan’s way leads to disease and death while following God’s way lead to life and health. Therefore, a truly health□ person from the Biblical perspective is one who has physical, mental or intellectual, emotional, social and spiritual well- being. As stated in 3 John 2, “ Beloved, I pray that you may prosper in all things and be in health, just as your soul prospers,” a healthy life is the perfection of Christ-like actions. Healthy life results in happiness. There is merit in thinking and acting positively, but the Bible declares that true spiritual well-being begins deep inside us, then spreads to physical, mental, emotional and social well-being. In Proverbs 15: 13 -15, “ A merry heart makes a cheerful countenance, but sorrow of the heart the sprit is broken...He who is of a merry heart has continual feast.” “Rejoice in the Lord always, ” Paul wrote from prison. “Again I will say, rejoice!” (Philippians 4: 4) Many studies show that a spiritual or religious life is associated with better health and longevity (Matthews, Larson, and Barry, 1993).

The five dimensions of health from the Biblical perspectives are as follows:

The Five Dimensions of Health

- ***Physical:*** Physical health means three aspects: 1) functioning body systems and the absence of disease or disability; 2) physical fitness; and 3) minimal exposure to abuse.
- ***Mental or intellectual:*** Mental health or intellectual health means well-being in thinking, or cognition, as opposed to feeling.
- ***Emotional:*** Emotional health is concerned with well-being in feeling, as opposed to thinking.
- ***Social:*** Social health has to do with one’s well-being in interaction with others.
- ***Spiritual:*** Spiritual health could be defined as one’s ability to love or trust and to accept love God.

All five health dimensions overlap and affect one another. Thus, improvements in one area of well-being may affect several other areas. Trust in God, for example, may improve you mood and give you spiritual energy that allows you to study more efficiently, lessen your study worries and improve your social interactions.

The goal of Korean Sahmyook University, where I work, is the same to the goal of health. It is to raise and educate the whole person rather than the parts such as intellectual person. Through the holistic approach based on the Biblical principles, all educators have made an effort to recover and restore human’s original image, God’s image.

C. Adventist Health Principles

Genesis states that God created all life. Man was made from the dust of the ground. In

Genesis 1: 29-30, instructions were given to him to eat fruit, nuts, and grains. Then in Genesis 9: 3,4, man is allowed to eat flesh but not blood. Men were given directives regarding Adventists diet and lifestyle that come from the Biblical promises of Deuteronomy 7: 11, 12 and 15. Abstinence from blood and fat are stated in Leviticus 7: 23-27.

The eight laws of health, called to the Seventh-day Adventist Church natural remedies, have been specified through the writing of E.G. White. The eight laws of health are “Pure air, sunlight, abstemiousness and moderation, rest, exercise, proper diet, the use of water, trust in divine power” (White, 1942, 1974)). The acronym that if used to summarize this is NEWSTART: 1) N = Nutrition, 2) E = Exercise, 3) W = Water, 4) S = Sunlight, 5) T = Temperance, 6) A = Air, 7) R = Rest, and 8) T = Trust in God.

D. Purpose of Study

The purpose of this essay is: 1) to introduce and adopt the Transtheoretical Model to change students’ Christ-like attitudes and actions such as, the Seventh-day Adventist Church natural remedies to promote health and to prevent disease; and 2) to examine the Seventh-day Adventist Church natural remedies from the Biblical perspectives.

II. TRANSTHEORETICAL MODEL

A. Circumstances That Led to the Development of the Model

As early as the 1950's, there were already about 36 distinct systems of psychotherapy and by 1975, there were 130. At about the time Dr. Prochaska was in school studying to be a psychotherapist, his father died of alcoholism and depression. He was unable to help or understand why his father died distrusting psychotherapy.

According to Dr. Prochaska's original book on *Systems of Psychotherapy: A Transtheoretical Analysis* published in 1979 (Prochaska, 1979), there were so many theories in the field of psychotherapy that this encouraged him to pursue his own research. In this book, he did a comparative analysis of 18 major theories of psychotherapy and behavioral change such as consciousness raising from the Freudian school of thought, contingency management from the Skinnerian tradition, and helping relationships from the Rogerians. Thus, the term is called **transtheoretical**.

The comparative analysis was limited to 18 systems because the other systems "seem to be dying a natural death with age and are best left undisturbed because they are so poorly developed that they have no theories of personality or pathology, or because they are primarily variations on major themes that are already included in the book. The final exclusion is less open to bias and that is that no system was excluded if more than 3% of surveyed therapists considered themselves followers of it," Prochaska (1979) wrote.

And in 1994, *Changing for Good* was co-authored by Dr. Prochaska (Prochaska, Norcross, & DiClemente, 1994). It was in the first chapter that he mentioned the circumstances about his father's death that helped make him delve more into psychotherapy, leading to the transtheoretical analysis. In this search for common principles of change, instead of finding separate change processes in each of the 18 leading systems of therapy, only **10 processes of change (the mechanisms people use)** were identified that can be applied to the level of either the individual's experience or environment to produce the change in behavior: ***consciousness raising, social liberation, dramatic relief (emotional arousal), self-reevaluation, commitment, stimulus control, countering (or counter conditioning), environmental control (environmental reevaluation), reward, and helping relationships.***

The 18 different systems differed in terms of: which of the processes were emphasized and whether the processes were applied more experientially or more environmentally. There was more agreement, however, on the importance of Particular processes in producing change. This became more evident in 1982 when Dr. DiClemente worked with Dr. Prochaska at the Texas Research Institute of Mental Sciences when they did an empirical analysis of self-changers compared to smokers taking professional treatments. The participants were found to be using different processes at different times of their challenges with smoking. It was during this research that they noted the **6 stages of change (the phases people go through)** individuals used to change their troubled behavior: ***precontemplation, contemplation, preparation or determination, action, maintenance,***

and termination (Prochaska & DiClemente, 1982).

B. Theoretical Framework of the Transtheoretical Model

The core constructs of the transtheoretical model are stages of change and processes of change.

1. Stages of Change

The stage of construct is important because it represents a temporal dimension. The Transtheoretical Model conceives behavior change as a process involving progress through a series of five or six stages.

- **Precontemplation:** Has no intention to take action within the next 6 months
- **Contemplation:** Intends to take action within the next 6 months.
- **Preparation:** Intends to take action within the next 30 days and has taken some behavioral steps in this direction.
- **Action:** Has changed overt behavior for less than 6 months
- **Maintenance:** Has changed overt behavior for more than 6 months.
- **Termination:** Overt behavior will never return, and there is complete confidence that you can cope without fear of relapse.

2. Process of Change

Processes of change are the covert and overt activities that health educators initiate to help modify their thinking, feeling or behavior through the six stages.

Consciousness Raising

Involves providing information regarding the nature and risk of unsafe behaviors and the value and drawbacks of the safer behavioral alternatives. It involves increased awareness the importance of changed lifestyle.

Dramatic Relief

Fosters the identification, experiencing, and expression of emotions related to the risk the safer alternatives in order to work toward adaptive. Psychodrama, role-playing, grieving, personal testimonies are used to move people emotionally.

Environmental Control (or Environmental reevaluation)

Allows the individual to reflect on the consequences of his or her behavior for other people. It can include reconsideration of perceptions of social norms and the opinions of people important to him or her. It includes the awareness that one can serve as a positive or negative role model for others.

Self Reevaluation

Entails the reappraisal of one's problem. It combines both cognitive and affective

assessment of one's self image with and without an unhealthy lifestyle, such as one's image as a couch potato and one's different image as a cheerful and spiritual person.

Commitment (or Self-liberation)

Encourages the person to consider their confidence in their ability to change and their commitment to doing so. New Year' resolutions, public testimonies, etc can enhance will power.

Social Liberation

Seeking to help others with similar situations. It requires an increase in social opportunities or alternatives, especially people who are relatively deprived.

Stimulus Control

Removes cues for unhealthy habits and adds prompts for healthier alternative. Avoidance, environmental reengineering, and self-help groups can provide stimuli that support change and reduce risks for relapse.

Helping Relationships

Assists the person in a variety of ways, including providing emotional support, modeling a set of moral beliefs, and serving as a sounding board. Rapport building, therapeutic alliances, counselor calls, and buddy systems can be sources of social support.

Reward

Developing internal and external rewards and making them readily but contingently available to improve the probability of the new behavior occurring or continuing. Teacher's compliments and group recognition can increase the probability of the new behavior.

Countering

Weighing the "pros" and "cons" of the behavior change. The challenge is to tip the balance in favor of making positive changes.

III. TRANSTHEORETICAL MODEL OF THE ADVENTIST HEALTH BEHAVIOR CHANGE

This is an example of how the Transtheoretical Model was applied to a case involving improving the motivation and changing lifestyles of college students. The first portion lists to behaviors the task force was interested in changing. The second portion described the Model in terms student readiness to change.

A. Adventist Health Behavior

The following is list that expected behaviors and outcomes are the targets of this change effort.

1. Target Behaviors: NEWSTART

Nutrition: Eat more plant foods but fewer animal foods.

Exercise: Exercise with useful work.

Water: Drink pure water frequently.

Sunlight: Exposure mild sunlight.

Temperance: Avoid the use of dangerous substances and judicious use of non-harmful foods.

Air: Obtain the purest air as possible.

Rest: Try to get suitable rest and sleep regularly

Trust in God: love or trust God and to accept love God completely.

Integrating and Learning in the Teaching of Adventist Health Behavior from the Biblical Perspectives of NEWSTART

The Seventh-day Adventist Church natural remedy, called the NEWSTART is one of core topics on health education programs of Korean Sahmyook University. One of objectives is to help student understand to find and discover the Biblical perspectives and White's counsels on health. Also, another objective is to show or assure students that the NEWSTART has been proved and discovered scientifically based on scientific proofs. Finally, it is to help students adopt Adventist health behaviors. Therefore, the first responsibility of the Christian health educator is to require a Biblical view of the NEWSTART and how God intervenes to help people.

Nutrition

In Genesis 1: 29-30, man was given fruits, nuts, and grains as food. Then in Genesis 9: 3,4, man is allowed to eat flesh but not blood. Abstinence from blood and fat are stated in Deut. 7: 11, 12 and 15. and Lev. 7: 23-27. In Acts 15: 20, prohibition against blood was stated

again in the New Testament. Many studies found that eating more plant foods but fewer animal foods would promote health (Nestle, 1999).

Exercise

In Genesis 1: 28, part of the prescription for health and happiness was useful labor. According to E.G White (Recreation that yields...), "Some have received the idea that it is dangerous to exercise, because they are sick. Such ones cannot get well without exercise. God made man a moving working machine. He designed that the muscles, and every organ of the body, should be put to use. But some guided by their feelings, will tell you that they cannot walk, or exercise in labor. They will relate their experience, that when they attempted to exercise it has greatly wearied them. Yet all the works of the human machinery were there. No organ was missing. Why, then, could they not be set in motion? The motive will power was wanting."

Water

Water is one of God's great Gifts. According to White (1942, 1974), "in health and in sickness, pure water is one of heaven's choicest blessings. Its proper use promotes health. It is the beverage that God provided to quench the thirst of animals and man. Drunk freely, it helps to supply the necessities of the system and assists nature to resist disease. The external application of water is one of the easiest and most satisfactory ways of regulating the circulation of the blood. A cold or cool bath is an excellent tonic. Warm baths open the pores and thus aid in the elimination of impurities. Both warm and neutral baths soothe the nerves and equalize the circulation." Water is very important to maintain of good health.

Sunlight

Life is not possible without sunlight like water. Many studies focus that too much exposure can bring harmful effects because of pollution of the atmosphere (Neer, 1975). However, exposure to mild sunlight is essential for the formation of Vitamin D. According to White (1942, 1974) "...plenty of sunlight ...is essential...to cheerfulness and vigor of the inmates of the home." In Malachi 4: 2, "But for you who revere my name, the sun of righteousness will rise with healing in its wings..." Sunlight is greatly benefit individual health.

Temperance: Moderation and Abstemiousness

According to White, she advised us to avoid the use of harmful substances and to have balanced diet-judicious use of non-harmful foods. SDAs believe (Church Bulletin...), "in healthful living by moderate use of that which is good and total abstinence from harmful, unclean foods, alcoholic beverages, tobacco, narcotics or other drugs." "According to White (1946), "The human has brought upon themselves disease of various forms by their own wrong habits. They have not studied how to live healthfully, and their transgression of the laws of their being has produced a deplorable state of things. The people have seldom

accredited their sufferings to the true cause – their own long course of action. They have indulged in intemperance in eating, and made a good of their appetite.”

Air

Like water and sunlight, we cannot live without air. White stated that lack of air could cause the following health problems, “ The system becomes weak and unhealthy, the circulation is depressed, the blood moves sluggishly through the system because it is not purified and ventilated by the pure, invigorating air of heaven. The mind becomes depressed and gloom, while whole system is enervated, and fevers and other acute diseases are liable to be generated.”

Rest

Adequate rest is necessary to maintain health. God created a rest day at the end of creation week. In Num 15: 32-36, the importance of the Sabbath was emphasized. The following sentences by White (1890) was emphasized the needs of adequate rest for vital living. “Those who make great exertions to accomplish just so much work in a given time, and continued to labor when their judgment tells them they should rest, are never gainers. They are living on borrowed capital. They are expending the vital force that they will need at a future time. And when the energy they have so recklessly used is demanded. They fail for want of it....”

Trust in God

In Luke 12:22, “Do not worry about your life; what you will eat; not about the body, what you will put on,” we should not be concerned about our tomorrow. We must trust him and follow his guiding. Jesus taught that worrying about the future is futile. We shouldn’t be traumatized by what might happen. Worry about our future and our present condition may cause stress that results in many diseases such as cardiovascular diseases, cancers, and psychiatric problems. White (Mind, Character ...) stated that nine tenths of diseases originate in mind. Jesus assured us in Matthew 28: 20 that “I am with you always even to the end of the age.” If we trust Him, we don’t need worry about anything. He is actively at work on earth through His obedient children. Many studies have found the effects of prayer on the health and recovery of the patients. With God there is meaningful to life (John 8:12; Pet 1: 8). Pains, suffering, and trials have purpose in the life of Christian (1 Pet 4: 12-16; James 1: 2-4). As part of God’s plan, we come through those that lead us to know God better (Rom 8: 17, 18).

The goal of the Seventh-day Adventist Church natural remedies is to restore complete physical, mental, emotional, social, and spiritual well-being, which come from the Bible.

2. Expected Outcomes

The following is list of expected outcomes if students adopt Adventist health behaviors.

- Strong beliefs and attitudes.
- Increased awareness of the importance of Adventist lifestyle
- Changed life styles -Adventist health behaviors.
- Improved quality of life.
- Promoted health /Prevented ill health.
- Improved academic performance.
- Increased activities in church including Bible study, baptisms, Sabbath school programs, etc.
- Development of intrinsic motivation to live a holy life.

B. Application of Stages of Change to “NEWSTART” Behaviors

For the purpose of our study of student motivation, if we are going to attempt to Adventist health behavior change (eating more plant foods but fewer animal foods, exercising with useful work, drinking pure water, exposure mild sunlight, avoiding the use of harmful substance and practicing judicious use of non-harmful foods, obtaining pure air, and trying to get suitable rest and sleeping regularly), this model is likely to help us design appropriate change strategies for students in different stages of this change process.

I am aware that our university students are very heterogeneous with respect to interest in, concern about, and experience with SDA and Adventist health behavior. In the Transtheoretical Model, students may go through a logical series of decision stages on their way to adopting Adventist health behaviors. Below are the Stages of Change as proposed by the Transtheoretical Model and applied to student behavioral change.

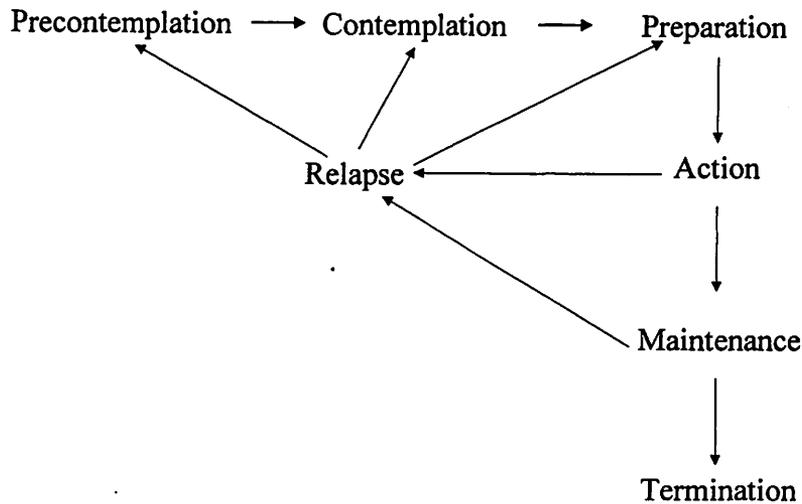


Figure 1. Stages of Adventist Health Behaviors

Stage 1: Precontemplation

Students in this stage can be those not practicing Adventist health behavior, and generally are not motivated to change their health behavior. Furthermore, those in this stage are not intending to change Adventist health behaviors in the near future. Students in this stage are generally either uninformed about the consequences of their behavior, or may have attempted change in the past with unsuccessful results. These students most likely avoid thinking about these behaviors and God. They can be characterized as resistant or unmotivated to adopt Adventist health behaviors. These students should be informed Adventist health behaviors are very Biblical, helpful and scientific to prevent disease and to promote health. Adopting Adventist health behaviors is a way to recover the “image of God.” This strategy (consciousness raising) can move them cognitively and affectively and help them shift to contemplation stage.

- Expected Outcome: Awareness
- Education Approach: Novel information, persuasive communications, experiences

Stage 2: Contemplation

Students in contemplation are aware that Adventist health behaviors may give them many benefits. However they also see a number of costs of change. The balance between the costs and benefits produces ambivalence, creating a block to successful Adventist health behavior change. Students in this stage could be encouraged to take small steps like drinking pure water, exposure mild sunlight, obtaining pure air, and trying to get suitable rest and sleeping regularly. They could choose several Adventist health behaviors that they perceive their ability to change their behaviors. The small steps can increase their self-efficacy, their confidence in their ability to take action, and help them become better prepared for adopting Adventist health behaviors.

- Expected Outcome: Knowledge acquisition
- Education Approach: Information, persuasive communications, experiences

Stage 3: Preparation

Where in the preparation stage, students are intending to make a change in the immediate future. The preparation stage is a stage of psychological preparation on the idea of change, imagine themselves behaving in the new way, even shares the idea with some other people to learn how to react. If preparation goes smoothly, then action is likely, but if preparation is accompanied by misgivings, perceived barriers, and action may not occur. They generally have a plan of action such as studying Adventist health principles, consulting a pastor or professor, reading the Bible, or relying on a self-change approach. Teacher can assist them in a variety of ways such as emotional support. Students could realize the fact that they are still the objects of God's love and they can be returned to Him and restored by responding to His love and following His law.

- Expected Outcome: Deciding
- Education Approach: How-to information, skill development, attitude change (Strong beliefs and attitudes)

Stage 4: Action

During the action or trial stages, students learn a lot about Adventist health behavior, how much they like it and how much effort it requires. Students in this stage are characterized by observable change in behaviors, that is, they are eating more plant foods but fewer animal foods, exercising with useful work, drinking pure water, exposure mild sunlight, avoiding the use of harmful substance and practicing judicious use of non-harmful foods, obtaining pure air, and trying to get suitable rest and sleeping regularly.

- Expected Outcome: Changed behavior

- Education Approach: Skill, reinforcement, support, self-management, attitude change

Stage 5: Maintenance

In the maintenance stage, students work to stop from reverting back to their previous pattern of their behavior.

- Expected Outcome: Continuation
- Education Approach: Relapse prevention skills, self-management, social and environmental support

Stage 6: Termination

One in the termination stage, students have adopted a new pattern of Adventist health behavior, which should last into this Korean Sahmyook University and beyond.

Relapse

Relapse may be gradual or sudden (Wierenga, 1991). It is important to keep in mind that relapse is more common than linear progression through these stages (Prochaska and Goldstein, 1991). It is helpful to think of the stage and relapse as cyclical. We, as a Christian teacher, trying to change students' attitude and behavior toward SDA, often view relapse as a failure. This stage description allows us to see relapse as part of the learning or adopting process, so we should not be disappointed or give up.

IV. CONCLUSION

What does this model tell us about changing students' Adventist health behaviors. Students need to progress through these stages. If they are in the early stages (precontemplation stage), action oriented advice and interaction is likely to be ineffective. Health educators as Christian teachers should help students have increased awareness about the importance of Adventist values in health. We must be able to identify students who do not exhibit these behaviors as our target population. We must be able to identify which stage each student in our target population is in. Multiple strategies must be developed to students in each of the various stages. The Biblical Adventist worldview of the human and health can help students understand God's original plan. The greater responsibility lies with the educators. Adventist institutions should endeavor to put into practice health message to teach them a Biblical view. The teaching methods to increase awareness of the importance of Adventist health principles should be applied to students according to their stage of change.

In light of Proverbs 3, it is awesome to contemplate what can become of our students. They could be well-known doctors, musicians, missionaries, etc. If I find the fact they were my students who attended the Korean Sahmyook University where I taught, how much I would be happy? It can come true. If they are taught to follow according to God's way and wisdom, use the skills He has given them, and follow His guidance, they can be much different as they are.

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APPENDIX: Questionnaire

Stages of Change Algorithm**NEWSTART**

Nutrition: Eat more plant foods but fewer animal foods.

Exercise: Exercise with useful work.

Water: Drink pure water frequently.

Sunlight: Exposure mild sunlight.

Temperance: Avoid the use of dangerous substances and judicious use of non-harmful foods.

Air: Obtain the purest air as possible.

Rest: Try to get suitable rest and sleep regularly

Trust in God: love or trust God and to accept love God completely.

1. I currently do not practice NEWSTART behaviors
 - 1) True
 - 2) False.

2. I intend to change NEWSTART behaviors in the next 6 months.
 - 1) True
 - 2) False

3. I currently practice NEWSTART behaviors regularly.
 - 1) True
 - 2) False

4. I have practiced NEWSTART behaviors for the past 6 months.
 - 1) True
 - 2) False

Note:

The scoring instructions for each stage:

If Item 1=true and Item 2=false, then =Precontemplation.

If Item 1=true and Item2=true, then=Contemplation.

If Item1=false and Item3=false, then=Preparation.

If Item3=true and Item4=false, then=Action.

If Item3=true and Item4=true, then=Maintenance