

THE DEVELOPMENT AND VALIDATION OF A MEASURE OF CHARMOPHOBIA

BY

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CERTIFICATION

I certify that this study was carried out by Arimih Cecilia Ibiyemi in the Department of Psychology, of the Federal University Oye Ekiti under my supervision.



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DEDICATION

This dissertation is dedicated to the Almighty God for His grace, provision, and protection and for seeing me through this project; for through him all things are possible. To my beloved mother Mrs Margaret Arimih for her motherly love, prayers and support, and to my late father Mr. Christopher Oluwaremilekun Arimih whose prayers is still sufficient for me. I know this dream is yours too. To my supervisor Mr. B.D. Olawa for his wonderful guidance, and support toward the fulfillment of this project and to my siblings, colleagues, friends, for all the love and the intellectual exchanges we shared.

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FUOYE	Federal University Oye Ekiti
SPSS	Statistical Package for Social Sciences
DSM-V	Diagnostic Statistical Manual-V
PBS	Paranormal Belief Scale
DUSOCS	Duke Social Support and Stress Scale
CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis

ABSTRACT

Anecdotal evidences have suggested that Africans generally belief and fear voodoo or charm. However, there is no existing scale to measure the fear of charm. Accordingly, the aim of this study was to develop and validate a measure of fear of charm (Charmophobia). Twenty three (23 items) were generated based on evidences obtained in a Focus Group Discussion (FGD) consisting of 12 participants and reduced to 21 items in the content validity process. To obtaining the factor structure, reliability and validity of the Charmophobia measure, 450 participants were recruited using the convenient sampling method from the population of Federal University Oye Ekiti, students and staffs, and administered the Charmophobia measure, the Revised Paranormal Belief Scale (Tobacyk, 1988) and Duke Social Support and Stress Scale (Parkerson et. al., 1991) Data were analyzed using Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Pearson Correlation. A four factor structure of the Charmophobia Scale was derived. The Charmophobia Scale (full items) yielded convergent validity coefficient of .31, discriminant validity coefficient of -.07 and a reliability coefficient of .86. It was recommended that the four factor Charmophobia Scale be used as a valid measure of fear of charm or voodoo.

Keywords

Charmophobia; Reliability, Validity

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The belief that charm can harm one and that it contains supernatural powers are anecdotal beliefs. The existence of magical powers, supernatural powers and witchcraft are generally believed to be of no credence, i.e. no evidence that they exist. Although individual witchcraft practices and effects may be open to scientific explanation or explained via mentalism and psychology and people have reported the occurrence of this paranormal events. In a 2008 study by the national Statistic Office (NSO), 76% of sampled Malawian households said they know of witches in their community, 62% said they know someone accused of witchcraft, 36% reported that they have a member who experienced bad things due to witchcraft, and 28% said they had taken steps to protect themselves against witchcraft. But it is not just in Malawi, it is generally across Africa and beyond. However, history shows that belief in witchcraft was quite endemic in Europe, especially between 13th and 17th century. Generally speaking, these beliefs are anecdotal in nature because even in the absence of no scientific explanations, people all over the world talk of its existence and have reported face to face encounter with it. To a lay man, charm has been something of fear in a typical African setting and the belief in its existence has existed throughout recorded history. Judging from this, it has been in existence at various times, and in many different and various forms, among cultures and religions globally, including the "archaic" and "highly developed" cultures, and continues to play an important part in many cultures of today's world. For example some surveys such as the one which was conducted by Gallup in 1996 about the nationally representative sample of Americans. It shows a high degree of belief,

interest and involvement in a variety of paranormal and religious related phenomena among the general population.

Words such as witch, wizard, sorcerer, black magician, witchdoctor, medicine-man, juju-man, fetisher, and so on, are bandied about freely with little attempt at fixing an approximate meaning for them" (Parrinder, 1963), so also, after much searches, words such as charm, juju, voodoo etc mean somehow the same thing, however voodoo means the religion or practice of some people and the object of use in this practice are charms, juju, magic, etc.. From empirical studies, it has been discovered that this object (charm) of use is imbedded in some concepts like witchcraft, voodooism, jujuism, supernatural powers, paranormal beliefs etc. The question is why do people fear charm and what causes the fear of this charm in people?

Webster (1828) defined "Charm" as something that is believed to have magic powers and especially to prevent bad luck, to put a spell on (someone or something) so that the person will do their biddings even though these biddings are bad and can harm. A phobia is a type of anxiety disorder, usually defined as a persistent fear of an object or situation the affected person will go to great lengths to avoid, typically disproportional to the actual danger posed. If the feared object or situation cannot be avoided entirely, the affected person will endure it with marked distress and significant interference in social or occupational activities. Combining these two constructs together, charmophobia will simply mean the fear of charm.

Charm is an object that contains magic powers which can be used both positively and negatively depending on the intent of the user. Furthermore, it has been observed that the negative use of this object by some people has evoked fear in others which has affected their everyday life and has become part of them. From this, we can conclude that the knowledge

people have of these objects' existence and that it can be used for evil deeds has evoked fear in people generally. Hence the concept "charmophobia"

Generally, instances of witchcraft has been occurring leading people to fear charm, even an infant can be affected by this ordeal and grow up to develop this fear of charm through social interactions with other people, or through the learning of his or her cultural values and norms. Based on subjective evidence, so many cases of supernatural events have occurred in Africa that has affected the lives of its inhabitants, an example is the killing by lightning of a 17 years old girl called Flora Kanjete which occurred in Malawi, Chimbanga village in Neno District (Ephraim, 2016). The death which is believed to be a product of witchcraft and not nature because it was later blamed on four of the girls four elderly relatives, later resulting to their deaths too by the villagers (Ephraim, 2016). The daily activities of the inhabitants of Chimbanga village have been affected in one way or the other because of the fear of the negative consequence of charm. The following presents the type of charm that is still in use in Africa, most especially in Nigeria (Chowlade 2015).

Charms used to harm:

An example of a charm used that has caused fear in people is the "Thunder Bolt" which means "magun" or "edun ara" in the Yoruba culture of Western region of Nigeria. It means "do not climb" in English Language or "iwo ko gbodo gun" in Yoruba Language. Thunderbolt can be traced to "Sango"- the god of thunder and lightning. Despite the fact that it has its origin in the Yoruba culture, this charm is also used by people of different tribe all over the country to curb promiscuity. Literally, it refers to the restriction of sexual intercourse. Thunder bolt is a love charm and a killer charm because it is placed on a woman by her lover or husband to stop her from having sexual intercourse with another man, thereby stopping her from ever falling in love

with another man because of the fear of losing that man to the killer charm. Some parents put this charm on their female children in order to prevent them from sexual acts or to punish anyone that rapes them. This charm is placed on the unfaithful women or on those that their spouse finds it difficult to trust or those that are obsessed with their partner. The aim of this charm is to prevent sexual promiscuity. Based on anecdotal evidence, knowing what this charm stands for has already caused fear in a typical Nigerian woman or lady.

Ayilala is yet another charm that is been used in Yoruba land to cast a spell on someone who steals or commits any kind of sin. Subjective evidence has also suggested that this charm could cause victims their lives.

Another from Yoruba land is Afose- meaning a charm placed on the mouth of the user and whatever spells is chanted upon the charm happens immediately. It is particularly used for evil deeds. Some other types of charms used in the Yoruba land for harm are:

Ijaya is a charm used in frightening an adversary or an antagonist in a place of work, school, e.t.c. It is used to take advantage of someone in a way that you want him/her to keep mute while you express your opinion and explore every good things to your advantage. Anecdotal evidence also suggests that this charm triggers fear in the minds of victims.

Eru This is a charm that when placed on someone by another, causes the victim to be scared of the doer for life. The victim will continue to do the charm users biddings for life and become enslave or trapped.

Mayehun is used when you want a person to grant your request after a command is made) could be used in wooing a lady, request money from people, miser or tight-fisted friends or wealthy men. Gbetugbetu is more of a hypnotizing charm. The person under the spell doesn't really know

what he is doing. It is used in compelling people to do the most impossible things. Things they would naturally not do or refuse to do. Olugbohun the "sound picker." is believed to be a powerful spirit that picks whatever is said and makes it happen, if this does not happen immediately, it will soonest. Some parents who out of frustration mistakenly curse their children because of the bad behavior they may have displayed at a point in time. This charm will create a situation that will cause your request to be met. It is not kept in the house but far away in the bush and it is consulted only once in a while because of the way it picks curses fast, so to prevent that, it is best not to keep it close by. Ase (To command Power and authority) it has the ability to make whatever statement you make to come to pass. It is the ability to compel anything to ones wills which include animated and unanimated object.

Charms used for protection and healing:

It has been discovered also that charms is not only used for evil deeds, it can be used for healing and for protection. Gris-gris, also spelled grigri, and sometimes also "gregory" or "gerregery" is a Voodoo amulet originating in Africa which is believed to protect the wearer from evil or brings luck and in some West African countries is used as a method of birth control (Knight & Jan, 1980). Charms are unrehearsed or an impromptu solution to people's needs and wants. It can be for protection and also for healing.

How some charms are made

West Africans make a variety of charms, some from simple roots; others are complicated assemblages. In West Africa, there is a tradition of enclosing writing in charms by writing down some spells for chanting, because writing is considered protective due to its inherent knowledge (Wahlman, 2001). Small square packets, often of red leather, cloth or metal, enclosing script, are worn around the neck and sewn onto ceremonial, hunting, and war costumes, for protection from

numerous and varied dangerous forces. The Tuareg peoples enclose their charms in intricate leather and metal designs. In central Africa, Kongo peoples use Minkisi, the medicines of God, made in numerous forms, and usually activated by reciting verbs of action, to conjure the powers that ancestors have to make charms work. The earliest known Minkisi (charms) were made from found roots, and ceramic vessels with liquid medicines. Cloth charms, usually red, and with feathers at the top, were tied. A wooden charm often took a human or animal shape, with a hollow in the center for the magical curing substances. This cavity was sealed with clay or cloth, and then might be marked with glass, a shell, mica, or a mirror, all references to the watery realm of the Kongo ancestors. Central African diviners often kept charm ingredients (claws, river stones, carved figurines, shells, clay, graveyard earth, etc.) in baskets. The magical materials could be used in divination (to determine solutions to problems), which might result in making a charm, using the same or similar ingredients (Wahlman, 2001).

Individuals not only believe in charms but also fear mentioning its name. This has made people act in certain way that are always suspicious of other people in their relationship and interaction with them. The point is that for people to believe in anecdotal events, they must have heard stories of it from family members, church members, peer groups, etc, and probably experienced it directly. Let us take some scenarios. For instance, in a work setting or environment, where the boss is a person who uses charms to boost sales or work performances. Some employees may not want to work under this type of employer after they must have found out the source of his or her success and even if they continue with their jobs; their performance might be hindered due to fear. The same also goes for an employee who is a charm user. An employer might not want such a person to work under him/her for a couple of reasons, probably due to fear that the person will bewitch him/her and take over the company, or that the employee might stalk the flow of business. Another is Mr. A who used to live with Mr. B an occult

individual who harms people at will and is the cause of Mr. A's relocation to live elsewhere. Mr. A already has a direct experience with who and what an occult person is and will never settle to live with such a person again due to fear of harm.

It has been discovered that charm or the use of charm travelled to the Americas from West Africa through the Atlantic slave trade and is still in practice in some places, most especially, among the different groups of Maroons, who have continued to keep their African traditions. In a telegraph in the year 2012, it was reported that charm is sometimes used to enforce a contract or ensure compliance. For instance, a spell can be placed on a Nigerian woman before she is trafficked into Europe for prostitution. This is to be certain that she will not escape and that she will pay her traffickers without cutting the money (The Telegraph, 2012). This may surely lead to fear in that victim. Charm is also commonly used in an attempt to affect the outcome of football games (Lovgren, 2006.)

THE ORIGIN OF VODOO

For so many of us in general, our perceptions of Voodoo or the schema we have of voodoo are shaped by the movies we watch on televisions and books of mysterious stories we have read. Nevertheless, in the real world setting, Voodoo is not only a secret practice of mysterious, sinister, island magic. Rather, it is a legal religion, with roots as old as Africa.

THE MOVEMENT OF VODOO FROM AFRICA TO THE WEST INDIES

Voodoo originated in the West Indies country of Haiti during the French Colonial Period, and it is still widely practiced in Haiti today. The foundations of Voodoo are the tribal religions of West Africa, brought to Haiti by slaves in the seventeenth century. These slaves were taken or captured from the kingdom of Dahomey, this is majorly the parts of today's Togo, Benin and

Nigeria. The word 'Voodoo' derives from the word 'vodu' in the Fon language of Dahomey, which means 'spirit', 'god'. Haiti at that time used to be in isolation. This allowed for Voodoo to develop and have its own unique and distinct traditions, beliefs and gods. The slaves as at then were captured from many different tribes throughout West Africa. The tribes from which the slaves were captured shared a lot of important beliefs that are common. Some of these beliefs include: Worship of the spirits of family ancestors; the use of singing, drumming and dancing in religious rituals; and the belief the followers were possessed by immortal spirits. When they started living in Haiti, the slaves formed a new religion which was based on all of their shared beliefs, at the same time absorbing each tribe's strongest traditions and gods. There were influences from the native Indian population in Haiti which were also composed of a whole during this formative period i.e., the developmental years. So the native Indians were part of the religion. For many of the enslaved Africans, the spiritual traditions and practices provided an important means of mental and emotional liberation from bitter hardship. Indeed, although they believed in their religion and their rituals may have not been able to free them physically, they were successfully frightening their captors and also threatening them. Due to this, the white plantation owners were against their slaves practicing their native religions and threatening them with torture and death, and they baptized all slaves as Catholics. Catholicism was imposed on the African rites and beliefs, but the slaves were still practicing in secret by dances and parties. The Africans practicing this new religion, Voodoo, considered the addition of the Catholic religion as an addition and further enrichment of their faith, and therefore included Catholic hymns, prayers, statues, candles and holy relics with their rituals. Today, the upper- and middle-class in Haiti have largely abandoned the Voodoo beliefs and are practicing Catholicism. Now Voodoo is largely practiced by the peasant class, and this comprises the majority of Haitians. The Voodoo religion has also migrated with the Haitians to many other different parts of the world, with particularly strong communities in New Orleans, Miami, Charleston and New York City. Over

the years, each of these communities has formed new rituals and practices. Worldwide, today Voodoo has over fifty million followers and worshippers.

THE MOVEMENT OF VOODOO/CHARM FROM HAITI TO NEW ORLEANS

Voodoo moved to America over 250 years ago, the 'African Slave Coast' started at about 1720 and so many Africans were being sold into the West Indies, and was also sold directly to New Orleans. During that period, living for slaves in Louisiana under French and Spanish rule was full of pain, suffering, dejection and misery. Slaves had to work from morning till sunset and after which they were being locked up in heavy guarded quarters for them to sleep at night. Then it was also against the law to gather for any given reason. These first generations of slaves were filled with hatred for their captors because they have been turned to savages and niggers (a person of Negro descent who acts in an unapproved manner, usually as an archetypical baddass). Then the whites hardly considered them as human, in their eyes, they were considered below human. For example, immediately after the founding of New Orleans in 1718, a slave camp was founded in swamps where the blacks were "broken" and not in good areas.

At these swamps, the blacks were worked out too much and beaten blue black until those who were the survivors were considered tame (not wild/domesticated) enough to be sold off to plantation owners. Not only the slaves were punished if caught gathering for dancing or for any other reason, but sometimes their owners would suffer, too. So meeting for Voodoo or any rites was almost impossible then. The only meeting permitted then was for superficial conversion to Catholicism, even so, some masters did not allow their slaves to practice any religion at all. In the year 1782 the governor of Louisiana even stopped the movement of blacks from the West Indies because he thought of them to be permeated in Voodooism and this was threatening to his citizens' safety. Although, he tried and in a little way outlawed the practice of Voodoo because

he feared that its evil forces would serve as a gathering point for slave upliftment, especially because the white colonial masters as at then were greatly outnumbered by the blacks they held in bondage. Some of these restrictions were lifted after the succession of James Monroe had concluded. A new generation of Africans had grown up, a generation that was in acceptance of their owners and was more obedient to them, and they also accepted their status as slaves. So also, a new generation of less of a tyrannical owner had developed. The fear of that thee blacks will be able to take over had diminished. Suffering, maltreatment, and punishment were less severe and it was as if the slave owners had come to an understanding that slaves were a valuable property. Now it was discovered that the blacks needed to have social activities as humans, and they were now allowed to gather round on the plantations for dances, weddings and religious celebrations of various sorts only on Sundays. The prohibition against blacks from West Indies was lifted in the year 1803. At the same time, slaves in Haiti used their African-born rituals to fuel their own rebellion. The beginning of organized Voodoo in Louisiana was between 1791 and 1804 where a series of slave revolts, which were inspired by spirit worship, finally culminated in the expulsion of the French from the island. The French who were able to escape fled to Louisiana, some were accompanied by their French speaking, occult-practicing slaves. Until then Voodoo had hardly been a living force in Louisiana. It had showed face again and again, but it has always been brutally suppressed. Due to unknown reasons, Voodoo had remained much stronger in the West Indies than in Louisiana. It has been recorded that the first meeting place of the Voodoos in New Orleans was an abandoned brickyard in Dumaine Street, soon after which the police drove them from this place, then that they began to gather along Bayou St. John and along the shore of lake Pontchartrain.

1.2 STATEMENT OF PROBLEM

The construct that has received much attention with respect to paranormal beliefs in the field of psychology is psychopathology and in particular 'magical thinking' (as seen in psychokinesis), which is among the defined symptoms of some psychiatric disorders like schizotypal personality disorder in the DSM-IV (American Psychiatric Association, 1994). It has been found that those who scored highest on magical thinking showed a predisposition to psychosis (Eckblad and Chapman, 1983). Research has also shown that paranormal beliefs are significantly and positively correlated with schizotypy (Thalbourne, 1994, Chequers, Joseph and Diduca, 1997) and with manic-depressive experiences (Thalbourne and French, 1995). The belief in charm as said earlier is anecdotal in nature which also means it is a paranormal belief. Generally charm has caused people to be nervous, uncomfortable, disorganized and fearful. Looking at it from an African perspective, the culture, beliefs, values of Africa are all rooted in superstition, this is so to the extent that people live believing that there is a supernatural being or force that supersedes their overall activities. The individual is heavily influenced by cultural factors, such as family, peer group processes, dissemination of paranormal concepts in media and formal persuasion by social institutions, e.g the church (Schriever, 2000). These beliefs have been in existence in recorded and unrecorded history and have since eaten deep in the belief system to the extent that people fear and worship these supernatural being or object. Due to this, the everyday activities of people are being marred by these beliefs and have become part of people's personality. To fear a supernatural power that is not seen but is being believed in because of stories heard or report of experiences by some people is a point to ponder.

Report of a Focus Group Discussion (FGD) conducted by the researcher reveals that people cannot perform their day to day activities because of the fear that someone or something somewhere has the supernatural power of harming them, people tend to become afraid of charm

after they must have been exposed to it severally overtime which has led to the conclusion that charm truly exists and it is so powerful that it can be used to harm one. So also that some people hold the beliefs in charms in high esteem as parts of their custom, rituals, norms and values which might in turn affect their pattern of thought or cognition.

Therefore, because of people's belief in and fear of charm, developing and validating a scale to measure charmophobia is necessary and important. To the best of the researcher's knowledge, there is yet to be a measure of the fear of charm in both national and international literatures. Hence, there is a need to develop such measure.

RESEARCH QUESTIONS

1. What are the norm, validity and reliability of the charmophobia scale?
2. Do items in the Charmophobia scale converge with the items in the Revised Paranormal Belief Scale (Tobacyk & Milford, 1983)?
3. Do items in the Charmophobia Scale discriminate with items in the Duke Social Support and Stress Scale (Parkerson et al., 1989, 1991)?

1.2 OBJECTIVES OF THE STUDY

The main aim of this study is to develop and validate a scale that will measure the fear of charm in both adolescents and adults. The specific objectives are:

- i. To establish the reliability of the charmophobia scale,
- ii. To determine the convergent validity of the charmophobia scale by correlating it with the Revised Paranormal scale (RPBS).

- iii. To demonstrate the discriminant validity of the charmophobia scale by correlating it with the Duke Social Support and Stress scale (DUSOCS).

1.3 SIGNIFICANCE OF THE STUDY

Given the present way and manner most people believe and fear charm, it is paramount to measure the concept of charmophobia or fear of charm. This scale will be able to tell the extent to which people fear charm. The successful development of the scale will enable the mechanism involve in the manifestation of other psychological variables such as paranoia, self-efficacy and delusional beliefs present in the schizophrenia spectrum disorders.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical framework

The beliefs in charms are paranormal in nature because paranormal beliefs are beliefs that are pertaining to events or perceptions occurring without scientific explanation, as clairvoyance or extrasensory perception. To understand this concept, this study made use of theories on paranormal beliefs to best explain and describe it. They include:

- Telepathy Theory of Paranormal Belief
- Paranormal Temperature Theory
- Ghost as Energy theory
- Conspiracy Theory of Paranormal Belief
- Energy Loss Ghost Spirit Theory

- **Telepathy Theory of Paranormal Belief**

Telepathy is gotten from two Greek words, “tele” meaning distant and “pathos” meaning feeling, perception, and telepathy is the purported transmission of information from one person to another without using any of our known sensory channels or physical interaction. Telepathy was coined by the classical scholar (Frederic W.H, 1882) who is a founder of the society for physical research.

Research has shown that there is no scientific evidence that telepathy is a real phenomenon. According to this theory, psychiatrist and clinical psychologist believe that empirical findings

support the idea that people with schizotypal personality disorder are particularly likely to believe in telepathy.

In the 19th century the creery sisters (Mary, Alice, Maud, Kathleen and Emily) were tested by the society for psychical research and believed them to have genuine psychic ability. However, during a later experiment they were caught utilizing signal codes and they confessed to fraud.

Conclusively, telepathy has to do with some power to communicate and it gives meaning to something of distance perception.

- **Ghost as Energy theory**

A ghost is the manifestation of the spirit or soul of a person. Despite years of efforts byghosts hunters on TV and in real life, we still do not have good proof that ghosts are real. Many ghost hunters believe that strong support for the existence of ghosts can be found in modern physics. Specifically, that Albert Einstein (1879 – 1955), one of the greatest scientific minds of all time, offered a scientific basis for the reality of ghosts. Einstein proved that all the energy of the universe is constant and that it can neither be created nor destroyed. So what then happens to that energy when we die if it cannot be destroyed, it must then according to Einstein be transformed into another form of energy. This new energy might be called a ghost.

Sometimes the term ghost is used synonymously with any spirit or demon; however in popular usage the term typical refer to a deceased person. In some detail, is that ghost are a collection of energy that somehow found a way to manifest itself within our physical realm. In affect ghost are simply a collection of naturally occurring, ambient energy that possesses the ability to interact with in the linear time and space. From a purely scientific stand point this seems most fantastic.

The belief in ghost as souls of the departed is closely tied to the concept of animism, ancient belief which attributed souls to everything in nature; souls were seen as creating the body. The idea is not nearly as remarkable once we recognize that everything including ourselves is actually made up of particles of energy in the form of atoms that appear, at least from our perspective, as solid matter. But there is nothing about us that is solid in the truest senses of the word; the atoms that make up our physical bodies are composed largely of empty space, making our apparent solidity really only an illusion. A ghost then may be nothing more than what we are only on a greatly diminished level. Ghost may be nothing more than people who possess the ability to attract enough energy to become solid enough to be seen, Though not solid enough to become flesh and blood. Making that truly nothing more than shadows of their former selves. Although, the human soul was sometimes symbolically or literally depicted in the culture as a bird or other animals. It was held that the soul was an exact reproductive of the body in every feature, even down to the cloth the person is wearing.

It's no secret that ghost have been known to make use of energy around them to do various things, from manifesting to moving object and to even speaking to the living.

- **.Paranormal Temperature Theory**

The temperature theory states that when a ghost starts to manifest, it can cause or lead to abnormal drops in temperature called cold spots or even cause a hot spot. The hot spot does happen in rare cases. If the drop in temperature is a cold spot the temperature should be around a 10 degrees drop in temperature. The temperature gauges or instruments used to detect cold spots are as follows:

- a. Digital Thermometer
- b. IR (Infrared) Thermometer

c. Thermal Imaging

Another theory regarding the paranormal and temperature is that when a ghost wants to come in contact with something or someone to give a sign they might generate wind. The wind meter is being used to determine this. This wind meter can tell you how fast the wind is blowing and in what direction it is coming from. Dramatic changes in temperature may cause sudden gusts of wind.

Another theory with temperature is, when a ghost is trying to manifest itself or wants to come in contact with someone there might be a change in pressure. Again, an extreme change in temperature may cause a change in air pressure. Similarly, a sudden change in air pressure may precede a change in temperature. The meter to detect pressure is called a barometer.

- **Conspiracy theory of paranormal belief**

Conspiracy theory is a theory that states that or explains a proposition some people, groups or organizations have caused or covered up, through secret planning and deliberate action, an illegal or harmful event or situation. What this means is that beliefs in the supernatural or paranormal is as a result of some persons hiding the truth about some situations, events that are harmful or illegal through means that are intentional. Some scholars suggest that people formulate conspiracy theories to explain paranormal belief, for instance power relations in social groups and the perceived existence of evil forces, it has been concluded that conspiracy theories have chiefly psychological or socio-political origins. The psychological origins are projections, that people attribute undesirable characteristics of self to another called the conspirator.

Conspiracy theories are sometimes proven correct such as the theory that United States president Richard Nixon and his aides conspired to cover up water gate. Some historians have put forward the idea that more recently the United States has become the home of conspiracy

theories because so many high level prominent conspiracies have been undertaken and uncovered since 1960s. The term conspiracy theory has a derogatory meaning, denoting explanations that invoke conspiracies without warrant, often producing hypotheses that contradict the prevailing understanding of historical events or simple facts (Balaban, 2005).

According to the political scientist Michael Barkun (2003), conspiracy theories rely on the view that the universe is governed by design, and embody three principles: nothing happens by accident, nothing is as it seems, and everything is connected. Another common feature is that conspiracy theories evolve to incorporate whatever evidence exists against them, so that they become unfalsifiable and, as Barkun argues, "a matter of faith rather than proof."

This theory states that as humans, we have a way of interpreting paranormal situations that happen around us, i.e., we believe that occurrences have reasons behind them, so there needs to be an explanation for them. We give our own explanations of these events which are against the actual true story or reason for the occurrence of the event.

- **Energy Loss Theory**

Biologically, all living things need energy to move about and perform some activities, for example as humans we eat food and store the energy in these food, so that later on we burn these energy supply in the activities that we partake in, such as jumping, walking, dancing, jogging, etc. Plants as living things also take in the sunlight (green light) energy and carbon dioxide energy to photosynthesize.

Therefore, this theory suggests that when a ghost is trying to manifest itself, it will try to draw in any energy that is around its area. The ghost can draw in energy from the people around it, making them to all of a sudden feel nauseous or tired, or it may draw from the electrical power

from ones batteries, i.e. the equipment one is using at that point in time. Many investigators/researchers have reported that they will just get sudden drainage in their battery level from the digital camera, or video camera which they are using. Although it might be because their digital camera or video camera had drainage in battery power already, these two devices use up battery power fairly quick. But in a situation whereby one has a digital camera and is only able to take about 20 photographs in the dark then the battery power will die out even on new batteries then we will say it is because of the battery capacity and not because a ghost is trying to draw in energy. With a video camera the view finder will use less battery power than having the LCD screen open to shoot video.

Normally if the voltage meter uses a 9-volt battery, and reads the exact voltage of the battery and then all of a sudden the battery is drained of its power, then we can say that paranormal activity occurred than saying that you used a digital camera or video camera and had a drop in power. In the course of this event, the investigator might become afraid and stop his or her investigation.

2.2 Related Empirical Studies

Past researches on the beliefs in charms are rare. Therefore due to this limitation, most of the related empirical studies will be based on researches done on paranormal beliefs and witch crafts.

- According to a study conducted by Chilimampungwa & Thindwa (2011), On The Extent and Nature of Witchcraft-based Violence against Children, Women and the Elderly in Malawi. The study was conducted with the aim of finding out the extent of witchcraft-based violence toward women, the elderly and children so that remedial measures could be prescribed. The findings of this study using 1193 household heads, 94 key informants, and 310 FGD participants

were that some people who are suspected or accused of practicing witchcraft are subjected to physical, economic, social, and psychological violence. Some of the suspected witches, most especially women and girls, are vulnerable to sexual abuse. Generally, a suspect is subjected to a combination of these forms of violence, of which the penalty is death. The rights of the individual suspect as well as of his or her family are violated. As a result of this inhuman violence, victims of this do not lead normal lives. They are cast off.

In a study by NSO (2008), 76% of sampled Malawian households said that they know of witches in their community, and 62% said they know someone accused of witchcraft.

Another research by Mwizenge (1993) on *The Witchdoctors are not Wrong: The Future Role and Impact of African Psychology on Individual Well-Being*. The study was able to define witchcraft and briefly explore its historical significance, explore the status and function of the witchcraft belief in contemporary Africa, explore why and how psychology should investigate the role of the witchcraft belief in Africa and how the discipline can harness the belief and put it to positive use in providing a wider range of options in the curing of illness.

Jesse (2006) published a book on *The Cognitive Psychology of Belief in the Supernatural*. It says belief in a deity or an afterlife could be an evolutionarily advantageous by-product of people's ability to reason about the minds of others.

Some Studies have showed a relationship between paranormal beliefs and magical ideation, i.e. magical thinking (Eckblad and Chapman, 1983, Tobacyk and Wilkmsn, 1990,) hypomania and schizophrenia (Windholz and Diamant, 1974), manic depressiveness (Thalbourne and French, 1995) and negative relation with psychological adjustment (Irwin, 1991). Contrary to this afore mentioned, some research has also suggested that there are no link

or correlation between paranormal experiences and mental health disorders (Goulding, 2004) and that these experiences could improve thoughts.

There exist the hypotheses that people who believe in angels or wondrous healings also believe in other paranormal phenomena such as ghosts and voodoo (Irwin, 1993; Rice, 2003).

A study conducted by Chad (2002) on Students Beliefs in the Paranormal, students generally believed that angels, crop circles, ESP, ghosts, out of body experiences, and near death experiences were actual or real, capable of being experienced. Males were significantly more likely to believe that aliens and Bigfoot are actual or real than females ($p < .05$). Females were significantly more likely to believe that angels, crop circles, and NDEs are actual or real than males ($p < .05$).

Another way that these beliefs have been studied is by studying it along side with people's cognition. Andreas & Martin (2004) researched on Critical thinking ability and belief in the paranormal. The study was designed to compare the critical thinking abilities of believers in and sceptics of paranormal phenomena. Possible influences on reasoning ability were controlled and the subject of study was systematically varied. The general hypothesis was that sceptics would exhibit higher critical thinking scores than would believers in paranormal phenomena. Secondly, in line with Musch and Ehrenberg (2002), it was assumed that if there are any differences between believers and non-believers, these differences can be ascribed to reasoning ability to a substantial extent. In sum, the ability to think critically about given contents does not seem to differ between believers and non-believers, whereas reasoning ability does. Certainly, critical thinking and reasoning are not independent from one another (the measures correlated to about .50), and it can thus be expected that in some contexts the ability to apply scientific thinking will be impeded by lower reasoning ability, at least if there are constraints such as time pressure or lack of content information.

Kirkpatrick's (1997) found qualified support for a relationship between attachment styles (e.g., commitment to relationships) and religiosity, the notion being that certain religious beliefs are tantamount to spiritual attachments that may compensate for the lack of certain social attachments. Yamane and Polzer (1994) focused on a more sociological aspect of religiosity: how religious traditions create alternative realities for adherents, which in turn facilitate ecstatic experiences with paranormal characteristics. MacDonald (1995) established an even stronger tie between religious and paranormal beliefs. He presented empirical support for a "cultural source" hypothesis not unlike Yamane and Polzer's; that is, one who holds religious beliefs is preconditioned to also hold paranormal beliefs and to have paranormal experiences.

2.3 Operational Definition of Terms

Charms: Something that is believed to have magical powers and can be used to harm someone by another person.

Phobia: Persistent fear of an object or situation.

Charmophobia: It is defined as the fear of charm. It was measured using 21 items generated inductively and deductively from a focus group discussion and theories articulated above respectively. It is rated on a scale from 1-6, 1 indicating low fear of charm while 6 indicates a high fear of charm. The items were scored directly except for items 7, 15 and 16 which were scored inversely.

Witchcraft: Someone who practices or has the ability to harm someone using magical or mystical powers.

Supernatural powers: A power that is extraordinary or beyond understanding and cannot be explained by science

Paranormal Beliefs: It is explained as anything beyond or contrary to what is deemed scientifically possible

Social support: It is the perception and actuality that one is cared for, has assistance available from families and people, and that one is part of a supportive social network.

CHAPTER THREE

METHOD

3.1 RESEARCH DESIGN

The study made use of a survey as the research design. Data was collected by means of self-report at a point in time.

3.2 SETTING

The study was conducted in Federal University Oye Ekiti, Ekiti State comprising of Oye and Ikole campuses in Nigeria. The two campuses were well conducive for survey research.

3.3 STUDY SAMPLE/PARTICIPANTS

The sample size for this study was four hundred and fifty (450) participants who were either lecturers or students of the university. They were sampled using convenience sampling method. Of those who reported their gender, 253 were women and 197 men with a 56.2% and 43.8% respectively. 386 were Christians, 49 were Muslims and 15 were traditionalists, with 85.8%, 10.9% and 3.3% respectively. 328 were Yoruba, 57 were Igbo, 40 were Hausa, while 25 people didn't report their ethnicity, with 72%, 12.7%, 8%, and 5.6% respectively.

3.4 INSTRUMENT

The instruments for this study were divided into four sections. Section A measured biographic information of participants. Section B contained item pool of the Charmophobia scale designed to measure fear of charm. Section C measured the discriminant validity for the Charmophobia scale using the Duke Social Support and Stress Scale (Parkerson, G.R. Jr., Michener, J.L., Wu,

L.R., et. al., 1991). Section D measured the convergent validity of the Charmophobia scale using the Paranormal Belief Scale (Tobacyk, 1988).

3.4.1 SECTION A: DEMOGRAPHIC INFORMATION

The scale used in the study comprises of items measuring the demographic feature of participants, such as age, gender, religion and ethnicity. Actual age was given, gender was reported as male and female, religion was given as Christianity, Islamic, and traditionalist, and ethnicity was given as Yoruba, Igbo, and Hausa.

3.4.2 SECTION B: CHARMOPHOBIA SCALE

In generating an item pool for the Charmophobia Scale, a Focus Group Discussion (FGD) of 12 participants was first of all conducted to identify fearful behaviours towards charm. 8 were staffs; both teaching and non teaching staffs and 4 were students. All were from the Federal University Oye Ekiti. Based on some questions that was asked in the FGD (e.g. "Is there a difference between the words charm, juju, and voodoo?" "What will you do when you see a charm placed on the road", "If you see a charm placed on your personal property, what will be your reaction", etc.), 23 items were developed to measure charmophobia. The content validity of these items were ensured by making it available for judgment by conference of experts. Respondents used a 2 point scale (Endorsed and not endorsed). The content validity was calculated using the content validity formula ($CVR = \frac{n_e - N/2}{N/2}$). Following this process, two items were deleted because their content validity ratios were too low. These items are: Whenever I come in contact with someone who has charms, I might be compelled to always greet because of the fear of being harmed, I can yield to the request of someone who has magical powers so that he/she does not cast a spell on me.

3.4.3 SECTION C: SOCIAL SUPPORT SCALE BY DUKE

The charmophobia scale's discriminant validity was established using Duke Social Support and Stress Scale developed by Parkerson, G.R. Jr., Michener, J.L., Wu, L.R., et. al., 1991. It is a 24 item dimensional scale that assesses perception of support received and stress caused by family and non-family members. The most supportive and most stressful relationships are identified also. This study used the social support scale only.

Validity (Quantitative): The scale was validated in 249 adult family practice patients using the Family Strengths. Spearman correlation of $p=0.43$ was achieved between the Duke Social Support and Stress Scale (DUSCOS) family support score and Olson's Family Strength measure $p=0.45$ was derived between the DUSOCS family stress score and an independent measure of strains in marital and intra-family relationships.

Reliability (Quantitative): Two week test-retest correlations of 0.76 were obtained for family support, 0.67 for non-family support, 0.68 for non-family stress, and 0.40 for family stress. Low test-retest reliability of 0.58 (family) and 0.27 (non-family) was obtained from a sample of 314 ambulatory patients (family support and non-family support received 0.73 and 0.50 respectively). Alpha coefficients of 0.53 to 0.7 were obtained.

3.4.4 SECTION D: PARANORMAL BELIEF SCALE (TOBAYCK, 1983)

The charmophobia scale convergent validity was established using the revised paranormal belief scale (RPBS) by Tobayck (1988, 1991). It is a 26 item self-report scale, which measures the following seven forms of paranormal beliefs: traditional religious belief, psi belief, witchcraft, superstition, spiritualism, extraordinary life forms and precognition. Responses to each item are scored on a five point likert scale with a higher rating indicating stronger endorsement. Tobayck and Milford (1983) reported satisfactory reliability and validity using the original form of the

PBS. The internal consistencies for the subscales are as follows, global consistency, 0.84, traditional religious belief 0.47, PSI 0.56, witchcraft 0.02, superstition 0.38, spiritualism 0.36, extraordinary life forms 0.36, precognition 0.51.

SCORING

Item 23 is reverse scored. Traditional religious belief: mean of items (1, 8, 15, 22); PSI = mean of items (2, 9, 16, 23), witchcraft = mean of items (3, 10, 17, 24), superstition = mean of items (4, 11, 18), spiritualism = mean of items (5, 12, 19, 25), extraordinary life form = mean of items (6, 13, 20), precognition = mean of items (7, 14, 21, 26).

3.5 PROCEDURE

Item Development

Using a sample from a Federal University Oye Ekiti, Ekiti State, Nigeria a focus group with staffs and students together was conducted to identify behaviors and attitudes that were representative of being afraid of charm. Based on this information, items for the charmophobia measure were developed deductively from theory as articulated in the above sections and inductively from the focus group discussion. Survey items were generated and a total of 23 items were identified. The items were then reviewed by conference of experts consisting of lecturers of the University for Content Validity and some of the items were reworded and discarded for clarity based on their feedback resulting to 21 items using the content validity formula ($CVR = (n_e - N/2) / (N/2)$). These items were either endorsed or not endorsed.

After which the items were administered to the participants. The participants were selected conveniently and they were asked to fill a consent form giving the consent to fill the questionnaire. The 450 participants rated themselves on each of the items using the six-point

response scale (*AVS- Agree Very Strongly, AS- Agree Strongly, A- Agree, D- Disagree, DS- Disagree Strongly, and DVS- Disagree Very Strongly*).

TABLE 1: CONTENT VALIDITY RATIO

ITEM NO.	CONTENT VALIDITY RATIO
1	0.45
2	0.45
3	1.0
4	0.64
5	0.82
6	0.27
7	0.27
8	0.64
9	0.64
10	0.64
11	0.45
12	0.09
13	0.45
14	0.27
15	0.27
16	0.45
17	1.0
18	0.82
19	0.45
20	0.82

21	0.82
22	0.45
23	0.27

Items 6, 7, 12, 14, 15 and 23 were rejected because of their low content validity. However, items 6, 12, 14 and 15 were modified according to the suggestions of the panelists. Leaving a total of 21 items.

STATISTICAL ANALYSIS

The data collected were subjected to analysis using Statistical Package in Social Sciences (SPSS) version 20.00 and IBM SPSS Amos 23.0. Demographic variables were analyzed using descriptive statistics such as mean, standard deviation, percentage and frequency distribution table. Exploratory Factor Analysis (EFA) was used to derive the dimensionality of the scale, Confirmatory Factor Analysis (CFA) was used to confirm the dimensionality of the charmophobia scale, Pearson Correlation was used to determine the convergent and discriminant validity of the charmophobia scale and Cronbach Alpha for the reliability.

CHAPTER FOUR

RESULTS

Table 1: Descriptive Statistics

Variables (N = 450)	A	Mean	SD	Skewnees	Kurtosis
Charmophobia (21 items)	.89	78.07	17.46	-.26	.24
Traditional Religious Belief	.50	6.20	2.22	1.16	1.53
Psi	.42	10.47	2.73	.32	.17
Witchcraft	.64	8.20	2.69	.57	.42
Superstition	.55	10.08	2.61	-.02	-.48
Spiritualism	.63	10.31	3.13	.62	.74
Extraordinary Life Forms	.52	6.83	2.26	.72	1.15
Precognition	.62	10.75	2.97	.18	.16
RPBS (Full scale)	.81	62.84	11.74	.39	1.11
Family support	-	7.27	2.78	.26	.21
Non family support	-	4.26	1.98	.21	.02
Social support	-	11.53	3.79	.19	.09

RPBS = Revised Paranormal Belief Scale

α = Cronbach alpha

4.2: Correlation Analyses

The results of correlation analyses between the charmophobia scale (21 items) and other scales are presented in table 2. The charmophobia scale (21 items) was moderately and negatively correlated with the RPBS (full scale) and its dimensions except the Traditional Religious Belief and witchcraft subscales [RPBS: $r = .31$, $p < .01$; Psi: $r = -.16$, $p < .01$; Superstition: $r = -.30$, $p < .01$; Spiritualism: $r = -.25$, $p < .01$, Extraordinary Life Forms: $r = -.17$, Precognition: $r = -.30$, $p < .01$, Traditional Religious Belief: $r = -.06$, $p > .05$; Witchcraft: $r = -.07$, $p > .05$]. However, the charmophobia scale was weakly and negatively correlated with the Duke Social Support (DUSOCS: full scale) and the non family support subscale (Duke NFS) but not correlated with Duke family support subscale (Duke FS) [DUSOCS: $r = -.12$, $p < .01$; Duke NFS: $r = -.14$, $p < .01$; Duke FS: $r = -.07$, $p > .05$].

Overall correlation analyses shows that the Charmophobia Scale (21 items) is more related with the RPBS than the DUSOCS.

Table 2: Correlations among Scales

Variables N=60*	1	2	3	4	5	6	7	8	9	10	11
1. Charmophobia	-										
2. TRB	.06	-									
3. Psi	.15**	.08	-								
4. Witchcraft	.07	.43**	.26**	-							
5. Superstition	.31**	-.18**	.32**	.07	-						
6. Spiritualism	.25**	.17**	.41**	.35**	.34**	-					
7. ELF	.17**	.21**	.32**	.48**	.25**	.49**	-				
8. Precognition	.30**	.03	.35**	.20**	.42**	.52**	.44**	-			
9. RPBS (Full scale)	.31	.37	.64	.62	.52	.78	.71**	.70**	-		
10. Duke Family support	-.07	-.01	.02	-.05	.02	-.03	-.05	-.004	-.02	-	
11. Duke NFS	-.14**	-.04	.002	-.15	-.01	-.02	.12**	-.08	-.09	.24**	-
12. DUSOCS (Full scale)	-.12**	-.03	.02	-.11	.01	-.03	-.10*	-.04	-.06	.86**	.70**

* $p < 0.05$ (2-tailed)

** $p < 0.001$ (2-tailed)

Note: TRB= Traditional Religious Belief; ELF = Extraordinary Life Forms; PB = Paranormal Belief; NFS = Non Family Support; DUSOCS = Duke Social Support Scale

Factor structure of the 21-item Charmophobia Scale: Exploratory Factor Analysis (EFA)

The EFA for the 21-item charmophobia scale was conducted. To ensure sampling adequacy, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was performed and it yielded a score of 0.88. According to Kaiser (1974), KMO values above .80 are considered great. For the EFA, the principal axis factor method of extraction with oblique rotation was performed on the data. The result of the extraction and rotation methods yielded five factors for the 21-item charmophobia scale based on eigenvalues greater than 1.

The factor loadings are presented in the table 3:

Table 3.1: Pattern Matrix^a of Five Factor Extraction of the Charmophobia Scale

Item No	Items	Factor				
		1	2	3	4	5
11.	I may not want to visit my kinsmen in the village because of fear of being harmed with charm	.75				
13.	I may be afraid to pass through the front of a building where a native doctor resides because of the fear of being charmed.	.75				
14.	I may not sit close to someone who is known to possess magical powers because of the fear of being charmed.	.59				

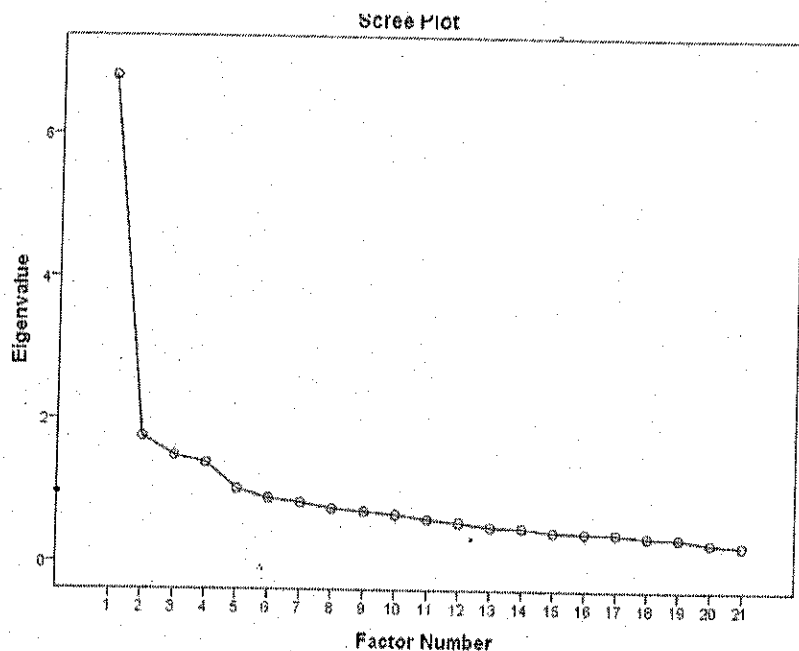
10.	I may not expose the evil deeds of someone who possess a charm so that the person will not cast a spell on me.	.51				
12.	I may not accept gifts from unfamiliar individuals because such gifts could contain charms that can negatively affect me.	.50				
6.	I may pay more respect to someone who possesses charms so that he/she does not cast a spell on me.	.40			-.32	
18.	As an employee, I may not work for someone who is known to possess charms because of fear of spiritual attack.			-.81		
17.	As an employer, I might not employ someone who is known to possess charms because of fear of spiritual attack.			-.70		
19.	I may be afraid to rent a house in which someone who was known to possess charms lived because of spiritual attack.			-.65		
15.	I am not afraid to shake hands with someone who is known to possess charms.			.78		
16.	I am not afraid to dine with someone who possesses charms.			.65		
4.	The mere sight of a charm may arouse fear in me and make me nervous.				-.73	
2.	I would be afraid of picking up and throwing away charms placed on my personal property.				-.69	
3.	I may be afraid to transact business with someone who possesses magical power.				-.67	
1.	I would not like to have someone who uses charms as a neighbour because of fear of bewitchment.				-.56	
5.	I would be reluctant to take legal actions against someone (with occultic powers) who has infringed on my right because of the fear of being bewitched.				-.46	
9.	I might feel nervous if I pass beside a charm placed on the road.				-.42	
8.	I would be afraid to step into an office or environment that has been infected with charm.				-.40	
20.	If I have a land dispute with someone who threatens to harm me with charms, I will not hesitate to relinquish my ownership of such landed property.					.564
21.	I may not criticise the views of someone who possesses charms at a meeting because of the fear of being spiritually attacked.					.500
7.	I am not afraid to have a charm using person as a friend.					

For clarity, only loadings ≥ 0.35 are indicated in the table

From table 3.1, it can be seen that items 11, 13, 14, 10, 12 and 6 loaded in factor 1 with items 11 and 13 having considerable higher loadings (.75) compared to other items. Items 18, 17 and 19 loaded in factor 2 with loadings not less than .70 except for item 19. There is only two items (15 and 16) loading in factor 3. Factor 4 has 7 items loadings (4, 2, 3, 1, 5, 9, 8, 20 and 21) with item 4 having the highest loading (.73). Though item 6 (-.32) loaded in factor 4; however, it has higher loading (.40) in factor 1. Only two items (20 and 21) loaded in factor 5 with loading less than .60. It is to be noted that item 7 was dropped because it has loading less than .20.

For proper guidance on the suitability of the 5 factors extracted based on eigenvalues greater than 1, the Scree test (Cattell, 1966, Mikloušić, Mlačić & Milas, 2010) is needed for more clarification. The Scree test is presented below:

Fig 1



In order to know the number of factors suitable in EFA of the Charmophobia Scale using the Scree test, it is suggested that the number of factors above the bend in the Scree plot be retained for further analysis (Cattell, 1966). It is noted in the plot that there is a bend at factor 5 which indicates that four factors are suitable for extraction using these data. This is confirmed by the eigenvalues and variance of the first four factors as compared to the fifth factor. The first four factors have eigenvalues of 6.38, 1.75, 1.49, and 1.39 with corresponding variances of 32.47%, 8.35%, 7.11% and 6.61. The fifth factor has eigenvalue of 1.02 with corresponding variances of 4.87. From these observations, there is clear and sharp decline in eigenvalues and variances after the first four factors. Therefore, it is appropriate to proceed with the extraction of the four factors using the principal axis factor analysis with oblique rotation.

The result of the three factor extraction is presented in the table below:

Table 3.2: Pattern Matrix^a of Four Factor Extraction of the Charmophobia Scale

Item No	Items	Factor			
		1	2	3	4
13	I may be afraid to pass through the front of a building where a native doctor resides because of the fear of being charmed.	.69			

11	I may not want to visit my kinsmen in the village because of fear of being harmed with charm	.67			
10	I will never expose the evil deeds of someone who possess a charm so that the person will not cast a spell on me.	.62			
21	I may not criticise the views of someone who possesses charms at a meeting because of the fear of being spiritually attacked.	.60			
6	I may pay more respect to someone who possesses charms so that he/she does not cast a spell on me.	.58			
14	I may not sit close to someone who is known to possess magical powers because of the fear of being charmed.	.54			
20	If I have a land dispute with someone who threatens to harm me with charms, I will not hesitate to relinquish my ownership of such landed property.	.48			
12	I may not accept gifts from unfamiliar individuals because such gifts could contain charms that can negatively affect me.	.45			
5	I would be reluctant to take legal actions against someone (with occultic powers) who has infringed on my right because of the fear of being bewitched.	.43			-.36
9	I might feel nervous if I pass beside a charm placed on the road.	.374			-.373
18	As an employee, I may not work for someone who is known to possess charms because of fear of spiritual attack.		-.80		
17	As an employer, I might not employ someone who is known to possess charms because of fear of spiritual attack.		-.72		
19	I may be afraid to rent a house in which someone who was known to possess charms lived because of spiritual attack.		-.61		
7	I am not afraid to have a charm using-person as a friend.				
15	I am not afraid to shake hands with someone who is known to possess charms.			.72	
16	I am not afraid to dine with someone who possesses charms.			.69	
4	The mere sight of a charm may arouse fear in me and make me nervous.				-.69
3	I may be afraid to transact business with someone who possesses magical power.				-.64
2	I would be afraid of picking up and throwing away charms placed on my personal property.				-.63
1	I would not like to have someone who uses charms as a neighbour because of fear of bewitchment.				-.55
8	I would be afraid to step into an office or environment that has been infected with charm.				-.34

For clarity, only loadings ≥ 0.35 are indicated in the table

From table 3.2, it can be seen that items 13, 11, 19, 21, 6, 14, 20, 12, 5, and 9 loaded in factor 1 with item 9 having the lowest loading. Items 18, 17 and 19 loaded in factor 2 similar to the factor 2 of the five item structure of the charmophobia scale. Only two items (15 and 16) loading in factor 3 as in factor 3 of the five factor structure. Factor 4 has 6 items loadings (3, 2, 1, and 8). Similar to the five factor structure, item 7 was dropped because it has loading less than .20.

Judgmental analyses of the suitability of either the five or four factor structure reveals that the five factor structure better yielded 5 themes for the charmophobia scale according to meaning conveyed by items group under each factor. For example, factor 1 contains two items (11 & 13) specifying fear of charm based on going to where people who possess charm live, factor 2 (18, 17 & 19) connoting fear of charm based on co-existing in the same building where people who possess charm are, factor 3 (15 & 16) connoting fear of charm based on having personal contact with those who possess charm, factor 4 (4, 2, 9 & 8) conveying fear of charm based on seeing charmed object while factor 5 (20 & 21) contains items specifying fear of charm based on avoidance of conflict with those who possess charm. Using these five themes as guide, the 20 items of the charmophobia scale may be intuitively subsumed under the following factors:

Factor 1

Item 11: I may not want to visit my kinsmen in the village because of fear of being harmed with charm

Item 13: I may be afraid to pass through the front of a building where a native doctor resides because of the fear of being charmed.

Factor 2:

Item 18: As an employee, I may not work for someone who is known to possess charms because of fear of spiritual attack.

Item 17: As an employer, I might not employ someone who is known to possess charms because of fear of spiritual attack.

Item 19: I may be afraid to rent a house in which someone who was known to possess charms lived because of fear of spiritual attack.

Item 1: I would not like to have someone who uses charms as a neighbour because of fear of bewitchment.

Factor 3:

Item 16: I may not be afraid to dine with someone who possesses charms.

Item 15: I may not be afraid to shake hands with someone who is known to possess charms.

Item 3: I may be afraid to transact business with someone who possesses magical power.

Item 14: I may not sit close to someone who is known to possess magical powers because of the fear of being charmed.

Factor 4

Item 4: The mere sight of a charm may arouse fear in me and make me nervous.

Item 2: I would be afraid of picking up and throwing away charms placed on my personal property.

Item 9: I might feel nervous if I pass beside a charm placed on the road.

Item 8: I would be afraid to step into an office or environment that has been infected with charm.

Item 12: I may not accept gifts from unfamiliar individuals because such gifts could contain charms that can negatively affect me.

Factor 5:

Item 20: If I have a land dispute with someone who threatens to harm me with charms, I will not hesitate to relinquish my ownership of such landed property.

Item 21: I may not criticize the views of someone who possesses charms at a meeting because of the fear of being spiritually attacked.

Item 5: I would be reluctant to take legal actions against someone (with occultic powers) who has infringed on my right because of the fear of being bewitched.

Item 10: I may not expose the evil deeds of someone who possess a charm so that the person will not cast a spell on me.

Item 6: I may pay more respect to someone who possesses charms so that he/she does not cast a spell on me.

Confirmatory Factor Analysis (CFA) of the Charmophobia Scale

Since the five factor structure of the Charmophobia scale derived above is exploratory in nature, there is need to determine the authenticity or correctness of the structure in measuring the construct of charmophobia (fear of charm). To achieve this, the five factor structure was subjected to Confirmatory Factor Analysis (CFA) using IBM SPSS Amos 23.0.

Five factor Structure of the Charmophobia Scale

Model 1: Hypothesized CFA Model of the Five Factor Charmophobia Scale

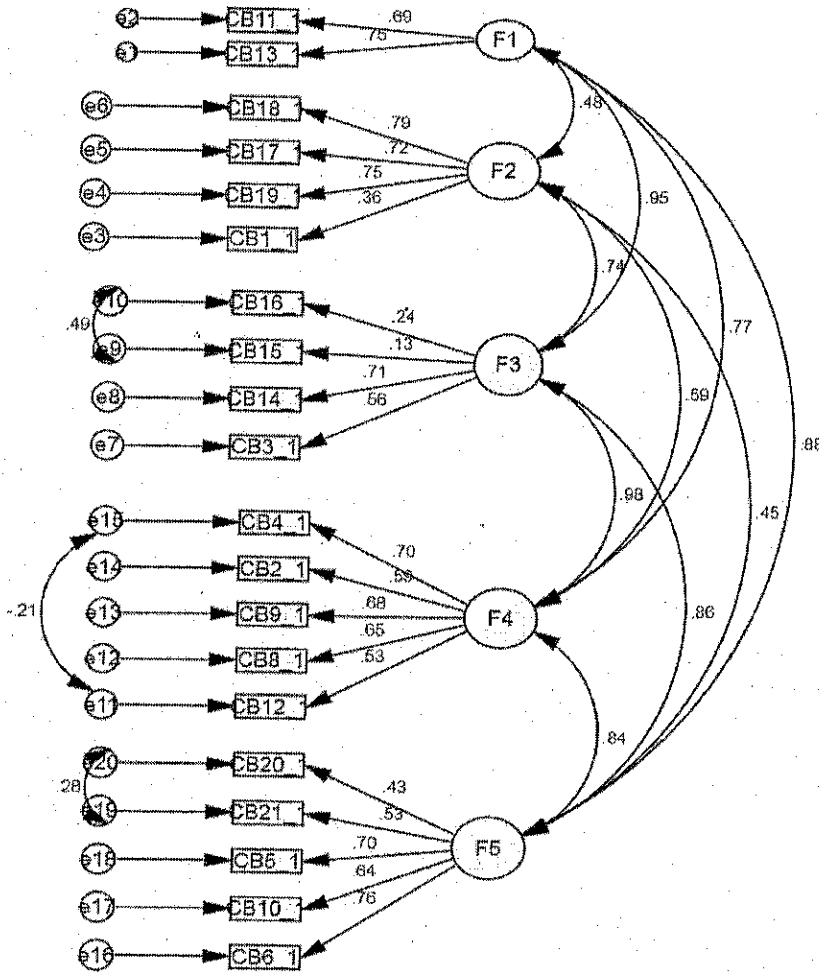


Figure 2

Figure 1 above shows the standardized estimates of the five factor model. It can be observed that many of the items had loadings less than .60 which may suggest a poor fit. The result of the fit indices of model 1 is presented below in table 4:

Table 4: Model 1 fit indices

Chi-square	df	P	CMIN/DF	CFI	GFI	AGFI	SRMR	RMSEA	PCLOSE
610.03	157	<.0001	3.89	.86	.88	.84	.07	.08	.000

CFI=Comparative Fit Index; GFI=Goodness of Fit Index; AGFI= Adjusted Goodness of Fit Index; SRMR=Standardized Root Mean Square Residual; RMSEA= Root-Mean-Square Error of Approximation; PCLOSE = p of close fit

In assessing the goodness of fit of the above model, the following criteria or threshold must be met as provided by Hu and Bentler 1999.

Table 5: CFA Threshold (Hu and Bentler, 1999)

Measure	Threshold
Chi-square/df (cmin/df)	< 3 good; < 5 sometimes permissible
p-value for the model	> .05
CFI	> .95 great; > .90 traditional; > .80 sometimes permissible
GFI	> .95
AGFI	> .80
SRMR	< .09
RMSEA	< .05 good; .05-10 moderate; > .10
PCLOSE	> .05

It is to be noted that in case of larger sample size (with 400 cases or more), the chi-square value is almost always significant for the model, which may make researchers reject appropriate model that ought to be accepted (Kenny, 2015; Gatignon, 2010; Byrne, 2001). Consequently, researchers turn to other fit measures such as the CFI, GFI and RMSEA in evaluating the fitness of a model (Miller, 2005)

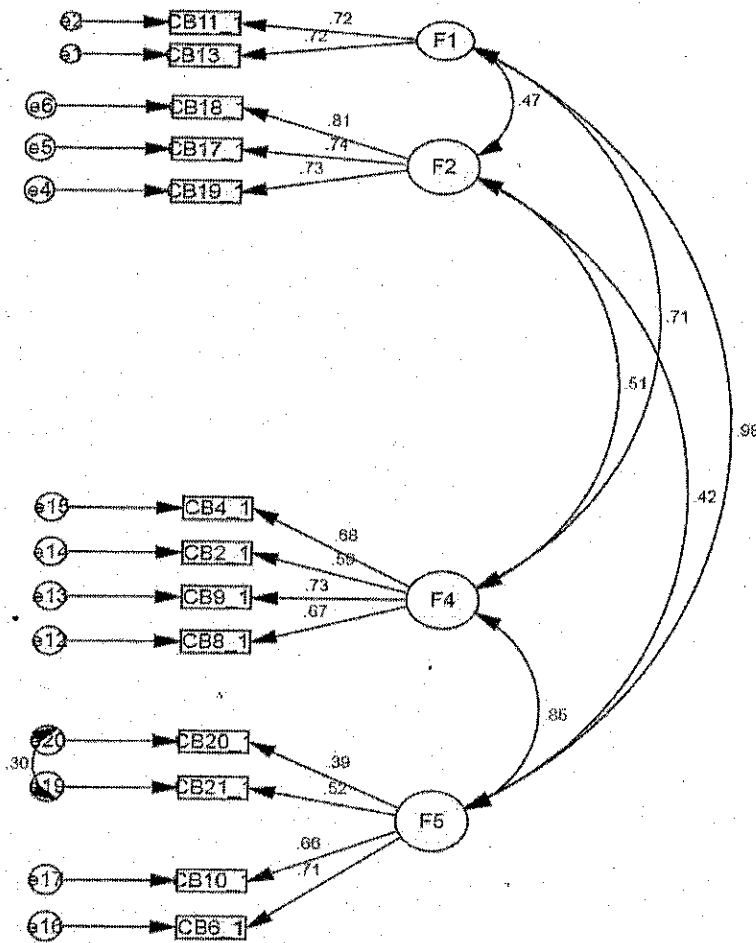
Comparing the fit indices in table 4 with the above criteria in table 5 indicates a fair fit for the model. The CFI (.86) is rather low; GFI (.87) is poor, RMSEA (.07) is moderate while the PCLOSE is significant. However, the AGFI (.84) and SRMR (.07) met the acceptable criteria.

Since a good fit was not achieved for the five factor structure charmophobia scale, it was necessary to delete items causing poor fit for the model as evidenced in weak loadings and standardized residual covariances' values extremely greater than .40. The deletion of items 1, 3, 14, 15, 16, 12 and 5 yielded model 2 below:

Fig 3

Four factor Structure of the Charmophobia Scale

Model 2: Hypothesized CFA Model of Charmophobia Scale (after item deletion)



It is shown in model 2 that item deletion resulted into outright removal of factor 3 and deletions of item 1 from factor 2, item 12 from factor 4 and item 5 from factor 5. Thus, model 2 yields a four factor structure for the Charmophobia scale.

The result of the fit indices of model 2 is presented below in table 4:

Table 6: Model 2 fit indices

Chi-square	df	p	CMIN/DF	CFI	GFI	AGFI	SRMR	RMSEA	PCLOSE
------------	----	---	---------	-----	-----	------	------	-------	--------

Model 2	133.61	58	P < 2.30	.96	.96	.93	.04	.05	.28
			.0001						

Comparing the fit indices in table 6 with the criteria in table 4b indicates a good fit for the model. The CFI (.96) is very great, the GFI (.96) substantially met the accepted threshold, large AGFI (.93) well above the threshold of .80, low SRMR (.04) which is considerably smaller than the maximum threshold, good RMSEA (.05) and non significant PCLOSE (.28). These fit indices general indicate great fit for the four factor Charmophobia scale.

Discriminant Validity of the Four Factor Charmophobia Scale (13 items)

The correlation of the Charmophobia scale (full scale) with the DUSOCS (full scale) shows that the two are weakly related (Duke family support: $r = -.07, p = .11$; Duke non family support: $r = -.13, p = .01$; DUSOCS: $r = -.12, p = .01$).

Convergent Validity of the Four Factor Charmophobia Scale (13 items)

The correlation of the Charmophobia scale (full scale) with RPBS shows that the two are moderately correlated ($r = .31, p < .0001$). The Charmophobia Scale also correlated with some subscales of the RPBS (Superstition: $r = .30, p < .0001$; Precognition: $r = .29, p < .001$; Spiritualism, $r = .24, p < .001$; Extraordinary Life Forms: $r = .20, p < .0001$).

Reliability of the Four Factor Charmophobia Scale (13 items)

The Cronbach's alpha coefficient for the four factors Charmophobia Scale (full items) is .86. Factor 1 (residual fear), factor 2 (proximity fear), factor 3 (physical object fear) and factor 4 (conflict fear) of the Charmophobia Scale yielded Cronbach's alpha coefficients of .68, .80, .76 and .70 respectively

CHAPTER FIVE
DISCUSSION, CONCLUSION, IMPLICATION, RECOMMENDATION,
AND LIMITATION

5.1 DISCUSSION

The study was conducted to develop and validate a scale to measure charmophobia or the fear of charm. Drawing from focus group discussion, a pool of 23 items was originally generated. After the examination of the content validity, 2 items were rejected leaving 21 items. A possible reason for the rejection of these 2 items are that they are too weak to measure charmophobia. Relating to Nigerian setting, one of the items (whenever I come in contact with someone who has charms, I might be compelled to always greet because of the fear of being harmed) is not something a Nigerian will be afraid of doing. Rather they will not greet the charm user so as not to call the attention of the charm user to themselves. The data collected based on the 21 items were subjected to Exploratory Factor Analysis to check for its dimensionality and it was discovered that the charmophobia scale has five dimensions. These are: the residual fear (items 11, 13), proximity fear (items 18, 17, 19, 1), personal contact fear (items 16, 15, 3, 14), physical object fear (items 4, 2, 9, 8, 12), conflict fear (20, 21, 5, 10, 6). Item 7 (I am not afraid to have a charm using-person as a friend) was not grouped under any factor because it does not tell the extent or the harm charm can cause. One can have a charm using person as a friend without encountering any harm. In a typical Nigeria Setting, these dimensions are meaningful. For example an item in the residual fear subscale of the scale (I may not want to visit my kinsmen in the village because of the fear of being harmed with charm) is common among families in Nigeria. Parents will tell their children not to go to their village because they believe there is a witch back at their hometown that might be jealous of their success and will want to harm them with charm. These paranormal beliefs are being passed on from generations to generations and have become a habit.

In the proximity fear subscale, item 17 (as an employer I may not employ someone who is known to possess charms because of fear of spiritual attack) is another problem in the work setting in Nigeria. For instance everybody believes another person can use black magic to deteriorate their business because they want to overthrow, so instead of employing based on expertise, an employer will employ someone who does not use magic. Item 14 under the personal contact fear subscale (I may not sit close to someone who is known to possess magical powers because of the fear of being charmed) is a very common belief in Nigeria. Some people believe that once a charm using person touches them, they may disappear or turn into an object. There is a popular word in Yoruba called "gbomogbomo" which means Kidnappers. At a point in Nigeria these kidnappers were all over, kidnapping children by just touching them. So it is believed in Nigeria that a charm using person can use charm to harm one by just a touch. Items in the physical contact fear subscale too is not left out, because people become nervous when they come in contact with or see a charm. For example when "ebo" known as sacrifice is placed on the road some people will start to murmur something like "orimiko", "Olorun maje" and waving their hands across their heads at the same time, these means they are rejecting it and trying to purify themselves. The last dimension which is the conflict fear subscale is also meaningful in the context of Nigeria, because a typical Nigerian person will not want to be killed as a result of a conflict with someone who possesses charm. For example Item 20 (If I have a land dispute with someone who threatens to harm me with charms, I will not hesitate to relinquish my ownership of such landed property) explains the way some people who value their lives and the lives of their loved one will react. There was a situation where the researcher's mother had to relinquish her ownership of a land just to protect herself and her children.

To make confirmations of these dimensions as produced by the EFA, the Confirmatory Factor Analysis was used and this resulted to the rejection of some of the items that were causing poor

fit, remaining a total of 13 items having four subscales for the charmophobia scale. Items 1, 3, 14, 15, 16, 12 and 5 were rejected because they were causing a poor fit of the model, meaning the whole of factor 3 (personal contact fear) and 3 other items were rejected. A possible justification of this is that these items might not explain enough reasons why someone should be afraid of charms. For example items 12 and 16 (I may not accept gifts from unfamiliar individuals because such gifts could contain charms that can negatively affect me and I may not be afraid to dine with someone who possesses charms), accepting gifts from unfamiliar individuals and not from charm users should not be something of fear because there are some occasions like our birthdays, wedding ceremonies, etc, whereby we collect gifts from people, majority of whom we don't know and we will still use them without fear. The rejection of item 16 might be because of the fact that it is not a good representation of the content domain under study because it is not directional enough.

The discriminant validity and the convergent validity of the charmophobia scale were achieved using Pearson (r) Correlation. The correlation of the Charmophobia scale (full scale) with the DUSOCS (full scale) shows that the two are weakly related (Duke family support: $r = -.07$, $p = .11$; Duke non family support: $r = -.13$, $p = .01$; DUSOCS: $r = -.12$, $p = .01$). for instance there is no strong or reasonable relationship between these two items of Charmophobia Scale and the DUSOCS (item 10 of the charmophobia scale: I will never expose the evil deeds of someone who possess a charm so that the person will not cast a spell on me and item 11 of the DUSOCS: Do you have one particular person whom you trust and to whom you can go with personal. There is no meaningful relationship between being afraid to expose the evil deeds of someone who possesses charms and having one particular trustworthy person. This proves Kirkpatrick's (1997) study that there is a relationship between attachment styles (e.g., commitment to relationships) and religiosity (e.g. traditional beliefs or beliefs in the paranormal), the notion being that certain religious beliefs are tantamount to spiritual attachments that may compensate for the lack of certain social

attachments. But notwithstanding, the correlation between the charmophobia (full scale) and Duke Social Support and Stress scale (DUSOCS full scale) shows a weak relationship, meaning the charmophobia scale was able to discriminate between the DUSOCS scale because the analysis reported a weak and negative relationship.

For the convergent validity, the correlation of the Charmophobia scale (full scale) with Revised Paranormal Belief Scale shows that the two are moderately and positively correlated ($r = .31, p < .0001$). The Charmophobia Scale also correlated with some subscales of the RPBS (Superstition: $r = .30, p < .0001$; Precognition: $r = .29, p < .001$; Spiritualism, $r = .24, p < .001$; Extraordinary Life Forms: $r = .20, p < .0001$). Relating item 3 of the PBS (Black magic really exists) and items on the charmophobia scale are proof of relationship. This proves these studies correct; there exist the hypotheses that people who believe in angels or wondrous healings also believe in other paranormal phenomena such as ghosts and voodoo (Irwin, 1993; Rice, 2003). Another is a study conducted by Chad (2002) on Students Beliefs in the Paranormal, students generally believed that angels, crop circles, ESP, ghosts, out of body experiences, and near death experiences were actual or real, capable of being experienced. Some studies have showed a relationship between paranormal beliefs and magical ideation, i.e. magical thinking (Kebald and Chapman, 1983, Tobacyk and Wilkmsom, 1990,) hypomania and schizophrenia (Windholz and Diamant, 1974), manic depressiveness (Thalbourne and French, 1995) and negative relation with psychological adjustment (Irwin, 1991). This shows that the words paranormal and charmophobia are closely related.

Reliability of the Charmophobia scale

The four factor of the charmophobia scale reported a Cronbach's alpha coefficient of .86. This shows that the charmophobia scale is high on consistency and will measure the same thing when used severally.

5.2 CONCLUSION

The research addressed the development and validation of a self-report measure of Charmophobia. The focus group conducted for the study provided the conceptual foundation for the items used in the scale. A factor analysis of a larger pool of items suggested a four factors solution of 13 items, although the original pool of items are 21. These four factors solution resulted in scale items that represented each of the following categories: Fear of charm based on going to where people who possess charms reside, fear of charm based on co-existing in the same building where people who possess charms are, fear of charm based on seeing charmed object and lastly fear of charm based on avoidance of conflict with a charm using person. Because the original pools of items used in this study are indicative of fearful behaviours, one can view the results of the factor analysis as suggesting a heterogeneous construct of charmophobia

The 13-item scale developed through factor analysis showed good reliability. The scale showed evidence of validity. Scores on the scale were related to the Paranormal Belief Scale and it predicted a moderate relationship. The scale also showed evidence of discriminant validity. It proved to be different from DUSOCS, as it showed a weak relationship.

In sum, the findings indicated that the 13-item scale holds promise as a reliable, valid measure of charmophobia (fear of charm)

5.3 IMPLICATION

Based on the findings of the research, the implications are:

- 1: It can be used hand in hand with other scales measuring paranoia to detect those who are paranoid which is a risk factor for personality disorders like paranoid personality disorder, schizotypal personality disorder, etc.

2. The scale will be able to measure the fear of charm in adolescents and adults and so also will be able to detect people with paranormal beliefs.
3. The scale can be used in researches on belief in the paranormal and other magical ideations.

5.4 RECOMMENDATION

Based on the findings of the research, the recommendations suggested are:

1. Potential users of the scale in theoretical research should explore the nature of charm, including the determinants of the fear of charm, the effects the fear of charm has on peoples' behavior and thinking pattern, etc.
2. Further researches should review and replicate the charmophobia scale to get a better validity of the scale.

5.5 LIMITATIONS

The study was faced with some limitations. These are: Difficulty in generating enough items for the charmophobia scale because the construct has not received much attention and has not yet been researched on, so the views on it is few and due to the type of research design adopted which is survey, participants' responses to the items might not be genuine and items might be nonchalantly filled.

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APPENDIX

Appendix A: Instrument for Charmophobia

DEPARTMENT OF PSYCHOLOGY
FACULTY OF SOCIAL SCIENCES
FEDERAL UNIVERSITY OYE-EKITI, NIGERIA.

I am an Undergraduate Student of the Department of Psychology, Federal University Oye-Ekiti conducting a research on "Psychology and Behaviour" as my final year project.

Kindly note that your identity is not required in participating in this survey and the information provided will be taken confidential. Please give your immediate impressions about the questions in this survey. There is no right or wrong answers.

Thank you for your cooperation.

Arimih Cecilia Ibiyemi

Matric No: PSY/12/0686

Please express your interest to participate in this survey by ticking either "yes" or "no" below:

I agree to participate: Yes () No ()

SECTION A

Demographic Information

Sex: Male () Female ()

Age: ----- (As at last birthday)

Religious Affiliation: Christianity () Muslim () Traditional ()

Ethnicity: -----

SECTION B: Using the scale below, please rate your level of agreements or disagreements with the following statements as it applies to you.

AVS= Agree Very Strongly,

AS= Agree strongly,

A= Agree,

D= Disagree,

DS= Disagree Strongly,

DVS= Disagree Very Strongly.

N/0	ITEMS	AVS	AS	A	D	DS	DVS
1.	I would not like to have someone who uses charms as a neighbour because of fear of bewitchment.						
2.	I would be afraid of picking up and throwing away charms placed on my personal property.						

3.	I might be afraid to transact business with someone who possesses magical power.						
4.	The mere sight of a charm may arouse fear in me and make me nervous.						
5.	I would be reluctant to take legal actions against someone (with occultic powers) who has infringed on my right because of the fear of being bewitched.						
6.	I might pay more respect to someone who possesses charms so that he/she does not cast a spell on me.						
7.	I am not afraid to have a charm using-person as a friend.						
8.	I would be afraid to step into an office or environment that has been infected with charm.						
9.	I might feel nervous if I pass beside a charm placed on the road.						
10.	I will never expose the evil deeds of someone who possess a charm so that the person will not cast a spell on me.						
11.	I might not want to visit my kinsmen in the village because of fear of being harmed with charm						
12.	I might not accept gifts from unfamiliar individuals because such gifts could contain charms that could negatively affect me.						
13.	I am afraid to pass through the front of a building where a native doctor resides because of the fear of being charmed.						
14.	I might not sit close to someone who is known to possess magical powers because of the fear of being charmed.						
15.	I am not afraid to shake hands with someone who is known to possess charms.						
16.	I am not afraid to dine with someone who possess charms.						
17.	As an employer, I might not employ someone who is known to possess charms because of fear of spiritual attack.						
18.	As an employee, I might not work for someone who is known to possess charms because of fear of spiritual attack.						
19.	I might be afraid to rent a house in which someone who was known to possess charms lived because of spiritual attack.						
20.	If I have a land dispute with someone who threatens to harm me with charms, I will not hesitate to relinquish my ownership of such landed property.						
21.	I might not criticise the views of someone who possess charms at a meeting because of the fear of being spiritually attacked.						

SECTION C:

A. Please look at the following list and decide how much each person (or group of persons) is supportive for you at this time in your life. Tick your answer.

N0	How supportive are these people now:	None	Some	A Lot	There is No Such Person
1	Your wife, husband, or significant other person				
2	Your children or grandchildren				
3	Your parents or grandparents				
4	Your brothers or sisters				

5	Your other blood relatives				
6	Your relatives by marriage (for example: in-laws, ex-wife ex-husband)				
7	Your neighbours				
8	Your co-workers				
9	Your church/mosque members				
10	Your other friends				
11	Do you have one particular person whom you trust and to whom you can go with personal	Yes	No		
12	If you answered "yes", which of the above types of person is he or she? (for example: child, parent, neighbour) _____				

SECTION D:

Please tick an option to each item to indicate how much you agree or disagree with that item. There is no right or wrong answers. Thank you.

SA=Strongly Agree; A= Agree; U= Undecided; D= Disagree; SD=Strongly Disagree

N/0	ITEMS	SA	A	U	D	SD
1	The soul continues to exist though the body may die.					
2	Some individuals are able to levitate (lift) objects through mental forces.					
3	Black magic really exists.					
4	Black cats can bring bad luck.					
5	Your mind or soul can leave your body and travel (astral projection).					
6	Marine spirits do exist.					
7	Astrology is a way to accurately predict the future.					
8	There is a devil					
9	Psychokinesis, the movement of objects through psychic powers, does exist.					
10	Witches do exist.					
11	If you break a mirror, you will have bad luck.					
12	During altered states, such as sleep or trances, the spirit can leave the body.					
13	Ghosts do exist.					
14	The horoscope accurately tells a person's future.					
15	I believe in God.					

16	A person's thoughts can influence the movement of a physical object.					
17	Through the use of formulas and incantations, it is possible to cast spells on persons.					
18	A pregnant woman walking around in the afternoon can bring bad luck to the woman and the unborn child.					
19	Reincarnation does occur.					
20	There is life on other planets.					
21	Some psychics can accurately predict the future.					
22	There is a heaven and a hell.					
23	Mind reading is not possible.					
24	There are actual cases of witchcraft.					
25	It is possible to communicate with the dead.					
26	Some people have an unexplained ability to predict the future.					

Appendix B: SPSS Output

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Traditional Religious Belief	450	7	20	17.65	2.374
Psi	450	4	20	13.51	2.728
Witchcraft	450	6	20	15.78	2.690
Superstition	450	3	15	7.93	2.618
Spiritualism	450	4	20	13.64	3.131
Extraordinary Life Forms	450	3	15	11.11	2.259
Precognition	450	4	20	13.20	2.958
Paranormal Belief	450	51	126	92.82	11.756
Valid N (listwise)	450				

Correlations

Correlations

	Charmoph obia	Traditional Religious Belief	PSi	Witchcr aft	Superstiti on	Spirituali sm
Pearson Correlation	1	.057	.152**	.072	.311**	.254**
Sig. (2-tailed)		.229	.001	.125	.000	.000
N	450	450	450	450	450	450

Traditional Religious Belief	Pearson Correlation	.057	1	.076	.425**	-.178**	.169**
	Sig. (2-tailed)	.229		.110	.000	.000	.000
	N	450	450	450	450	450	450
Psi	Pearson Correlation	.152**	.076	1	.256**	.323**	.414**
	Sig. (2-tailed)	.001	.110		.000	.000	.000
	N	450	450	450	450	450	450
Witchcraft	Pearson Correlation	.072	.425**	.256**	1	.071	.345**
	Sig. (2-tailed)	.125	.000	.000		.132	.000
	N	450	450	450	450	450	450
Superstition	Pearson Correlation	.311**	-.178**	.323**	.071	1	.341**
	Sig. (2-tailed)	.000	.000	.000	.132		.000
	N	450	450	450	450	450	450
Spiritualism	Pearson Correlation	.254**	.169**	.414**	.345**	.341**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	450	450	450	450	450	450
Extraordinary Life Forms	Pearson Correlation	.166**	.204**	.323**	.477**	.246**	.489**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	450	450	450	450	450	450
Precognition	Pearson Correlation	.294**	.033	.345**	.190**	.415**	.522**

Correlations

		Extraordin ary Life Forms	Precogni tion	Paranorm al Belief	Family support	Non family support	Social support
Charmophobia	Pearson Correlation	.166	.294	.306**	-.067	-.138**	-.122**
	Sig. (2-tailed)	.000	.000	.000	.157	.003	.010
	N	450	450	450	450	450	450
Traditional Religious Belief	Pearson Correlation	.204	.033	.370	-.009**	-.038**	-.027**
	Sig. (2-tailed)	.000	.485	.000	.844	.421	.572
	N	450	450	450	450	450	450
Psi	Pearson Correlation	.323**	.345	.637	.022**	.002**	.017**
	Sig. (2-tailed)	.000	.000	.000	.648	.969	.722
	N	450	450	450	450	450	450
Witchcraft	Pearson Correlation	.477	.190**	.622**	-.048	-.151	-.114**
	Sig. (2-tailed)	.000	.000	.000	.307	.001	.015
	N	450	450	450	450	450	450
Superstition	Pearson Correlation	.246**	.415**	.521**	.018	-.013	.006**
	Sig. (2-tailed)	.000	.000	.000	.708	.783	.896
	N	450	450	450	450	450	450
Spiritualism	Pearson Correlation	.489**	.522**	.777**	-.029**	-.015**	-.029
	Sig. (2-tailed)	.000	.000	.000	.542	.758	.542
	N	450	450	450	450	450	450

Extraordinary Life Forms	Pearson Correlation	1**	.439**	.713**	-.046**	-.124**	-.099**
	Sig. (2-tailed)		.000	.000	.334	.008	.037
	N	450	450	450	450	450	450
Precognition	Pearson Correlation	.439**	1	.698**	-.004**	-.075**	-.042**

Correlations

		Charmoph obia	Traditional Religious Belief	PSi	Witchcr aft	Superstiti on	Spiritual ism
Precognition	Sig. (2-tailed)	.000	.485	.000**	.000	.000**	.000**
	N	450	450	450	450	450	450
	Pearson Correlation	.306	.370	.637	.622	.521	.777
Paranormal Belief	Sig. (2-tailed)	.000	.000	.000	.000**	.000**	.000**
	N	450	450	450	450	450	450
	Pearson Correlation	-.067	-.009	.022	-.048	.018	-.029
Family support	Sig. (2-tailed)	.157**	.844	.648	.307**	.708**	.542**
	N	450	450	450	450	450	450
	Pearson Correlation	-.138	-.038	.002	-.151	-.013	-.015
Non family support	Sig. (2-tailed)	.003	.421**	.969**	.001	.783	.758**
	N	450	450	450	450	450	450
	Pearson Correlation	-.122	-.027	.017	-.114	.006	-.029
Social support	Sig. (2-tailed)	.010**	.572**	.722**	.015	.896	.542**

N	450	450	450	450	450	450
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Correlations

		Extraordin ary Life Forms	Precogni tion	Paranorm al Belief	Family support	Non family support	Social support
Precognition	Sig. (2-tailed)	.000		.000**	.926	.113**	.370**
	N	450	450	450	450	450	450
	Pearson Correlation	.713	.698	1	-.022	-.091	-.064
Paranormal Belief	Sig. (2-tailed)	.000	.000		.648**	.053**	.178**
	N	450	450	450	450	450	450
	Pearson Correlation	-.046	-.004	-.022	1	.242	.861
Family support	Sig. (2-tailed)	.334**	.926	.648		.000**	.000**
	N	450	450	450	450	450	450
	Pearson Correlation	-.124	-.075	-.091	.242	1	.701
Non family support	Sig. (2-tailed)	.008	.113**	.053**	.000		.000**
	N	450	450	450	450	450	450
	Pearson Correlation	-.099	-.042	-.064	.861	.701	1
Social support	Sig. (2-tailed)	.037**	.370**	.178**	.000	.000	
	N	450	450	450	450	450	450

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Correlations

Correlations

		Paranormal Belief	CharmoF 1	CharmoF 2	CharmoF 3	CharmoF 4	Charmo T
Paranormal Belief	Pearson Correlation	1	.256**	.222**	.262**	.232**	.307**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	450	450	450	450	450	450
CharmoF1	Pearson Correlation	.256**	1	.352**	.512**	.596**	.738**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	450	450	450	450	450	450
CharmoF2	Pearson Correlation	.222**	.352**	1	.407**	.564**	.734**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	450	450	450	450	450	450
CharmoF3	Pearson Correlation	.262**	.512**	.407**	1	.523**	.808**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	450	450	450	450	450	450
CharmoF4	Pearson Correlation	.232**	.596**	.564**	.523**	1	.857**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	450	450	450	450	450	450
CharmoT	Pearson Correlation	.307**	.738**	.734**	.808**	.857**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	450	450	450	450	450	450

** Correlation is significant at the 0.01 level (2-tailed).

Correlations

Correlations

		Paranormal Belief	Charm of F1	Charm of F2	Charm of F3	Charm of F4	Charm of T	Traditional Religious Belief
Paranormal Belief	Pearson Correlation	1	.256**	.222**	.262**	.232**	.307**	.370**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	450	450	450	450	450	450	450
Charm of F1	Pearson Correlation	.256**	1	.352**	.512**	.596**	.738**	-.081
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.087
	N	450	450	450	450	450	450	450
Charm of F2	Pearson Correlation	.222**	.352**	1	.407**	.564**	.734**	.191**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	450	450	450	450	450	450	450
Charm of F3	Pearson Correlation	.262**	.512**	.407**	1	.523**	.808**	.031
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.508
	N	450	450	450	450	450	450	450
Charm of F4	Pearson Correlation	.232**	.596**	.564**	.523**	1	.857**	-.002
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.973
	N	450	450	450	450	450	450	450
Charm of T	Pearson Correlation	.307**	.738**	.734**	.808**	.857**	1	.051

	Sig. (2-tailed)	.000	.000	.000	.000	.000		.282
	N	450	450	450	450	450	450	450
Traditional Religious Belief	Pearson Correlation	.370**	-.081	.191**	.031	-.002	.051	.1
	Sig. (2-tailed)	.000	.087	.000	.508	.973	.282	
	N	450	450	450	450	450	450	450
Psi	Pearson Correlation	.637**	.189**	.087	.087	.124**	.146**	.076
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000

Correlations

		Psi	Witchcraft	Superstition	Spiritualism	Extraordinary Life Forms	Precognition
Paranormal Belief	Pearson Correlation	.637	.622**	.521**	.777**	.713**	.698**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	450	450	450	450	450	450
CharmoF1	Pearson Correlation	.189**	.002	.292**	.241**	.114**	.305**
	Sig. (2-tailed)	.000	.971	.000	.000	.015	.000
	N	450	450	450	450	450	450
CharmoF2	Pearson Correlation	.087**	.166**	.083	.113**	.184**	.164**
	Sig. (2-tailed)	.066	.000	.080	.016	.000	.000
	N	450	450	450	450	450	450
CharmoF3	Pearson Correlation	.087**	.077**	.268**	.207	.190**	.264**
	Sig. (2-tailed)	.064	.104	.000	.000	.000	.000
	N	450	450	450	450	450	450

CharmoF4	Pearson Correlation	.124**	.030**	.298**	.192**	.139	.209**
	Sig. (2-tailed)	.008	.531	.000	.000	.003	.000
	N	450	450	450	450	450	450
CharmoT	Pearson Correlation	.146**	.090**	.299**	.236**	.203**	.294
	Sig. (2-tailed)	.002	.055	.000	.000	.000	.000
	N	450	450	450	450	450	450
Traditional Religious Belief	Pearson Correlation	.076**	.425	-.178**	.169	.204	.033
	Sig. (2-tailed)	.110	.000	.000	.000	.000	.485
	N	450	450	450	450	450	450
Psi	Pearson Correlation	1**	.256**	.323	.414	.323**	.345**

Correlations

		Paranormal Belief	CharmoF1	CharmoF2	CharmoF3	CharmoF4	CharmoT	Traditional Religious Belief
Psi	Sig. (2-tailed)	.000	.000**	.066**	.064**	.008**	.002**	.110**
	N	450	450	450	450	450	450	450
Witchcraft	Pearson Correlation	.622	.002	.166	.077	.030	.090	.425
	Sig. (2-tailed)	.000**	.971	.000**	.104**	.531**	.055**	.000
Superstition	N	450	450	450	450	450	450	450
	Pearson Correlation	.521	.292	.083	.268	.298	.299	-.178
	Sig. (2-tailed)	.000**	.000**	.080	.000**	.000**	.000**	.000**

Spiritualism	N	450	450	450	450	450	450	450
	Pearson Correlation	.777	.241	.113	.207	.192	.236	.169
	Sig. (2-tailed)	.000**	.000**	.016**	.000	.000**	.000**	.000
Extraordinary Life Forms	N	450	450	450	450	450	450	450
	Pearson Correlation	.713	.114	.184	.190	.139	.203	.204
	Sig. (2-tailed)	.000**	.015**	.000**	.000**	.003	.000**	.000
Precognition	N	450	450	450	450	450	450	450
	Pearson Correlation	.698	.305	.164	.264	.209	.294	.033
	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000**	.000	.485
	N	450	450	450	450	450	450	450

Correlations

		Psi	Witchcraft	Superstition	Spiritualism	Extraordinary Life Forms	Precognition
Psi	Sig. (2-tailed)		.000**	.000**	.000**	.000**	.000**
	N	450	450	450	450	450	450
	Pearson Correlation	.256	.1	.071	.345	.477	.190
Witchcraft	Sig. (2-tailed)	.000**		.132**	.000**	.000**	.000**
	N	450	450	450	450	450	450
	Pearson Correlation	.323	.071	.1	.341	.246	.415
Superstition	Sig. (2-tailed)	.000**	.132**		.000**	.000**	.000**
	N	450	450	450	450	450	450

Spiritualism	Pearson Correlation	.414	.345	.341	1	.489	.522
	Sig. (2-tailed)	.000**	.000**	.000**		.000**	.000**
	N	450	450	450	450	450	450
Extraordinary Life Forms	Pearson Correlation	.323	.477	.246	.489	1	.439
	Sig. (2-tailed)	.000**	.000**	.000**	.000**		.000**
	N	450	450	450	450	450	450
Precognition	Pearson Correlation	.345	.190	.415	.522	.439	1
	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000**	
	N	450	450	450	450	450	450

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Reliability

Scale: RPBS (Full Scale)

Case Processing Summary

		N	%
Cases	Valid	450	100.0
	Excluded ^a	0	.0
	Total	450	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.813	26

Correlations

Correlations

		Charmo F1	Charmo F2	Charmo F3	Charmo F4	Charm oT	Family support	Non family support
CharmoF1	Pearson Correlation	1	.352**	.512**	.596**	.738**	-.051	-.075
	Sig. (2-tailed)		.000	.000	.000	.000	.283	.112
	N	450	450	450	450	450	450	450
CharmoF2	Pearson Correlation	.352**	1	.407**	.564**	.734**	-.061	-.069
	Sig. (2-tailed)	.000		.000	.000	.000	.196	.143
	N	450	450	450	450	450	450	450
CharmoF3	Pearson Correlation	.512**	.407**	1	.523**	.808**	-.066	-.138**
	Sig. (2-tailed)	.000	.000		.000	.000	.163	.003
	N	450	450	450	450	450	450	450
CharmoF4	Pearson Correlation	.596**	.564**	.523**	1	.857**	-.056	-.097*
	Sig. (2-tailed)	.000	.000	.000		.000	.238	.040
	N	450	450	450	450	450	450	450
CharmoT	Pearson Correlation	.738**	.734**	.808**	.857**	1	-.075	-.125**
	Sig. (2-tailed)	.000	.000	.000	.000		.113	.008
	N	450	450	450	450	450	450	450

Family support	Pearson Correlation	-.051	-.061	-.066	-.056	-.075	1	.242**
	Sig. (2-tailed)	.283	.196	.163	.238	.113		.000
	N	450	450	450	450	450	450	450
Non family support	Pearson Correlation	-.075	-.069	-.138**	-.097*	-.125**	.242**	1
	Sig. (2-tailed)	.112	.143	.003	.040	.008	.000	
	N	450	450	450	450	450	450	450
Social support	Pearson Correlation	-.076	-.081	-.121*	-.092	-.121*	.861**	.701**

Correlations

		Social support
CharmoF1	Pearson Correlation	-.076
	Sig. (2-tailed)	.105
	N	450
CharmoF2	Pearson Correlation	-.081**
	Sig. (2-tailed)	.086
	N	450
CharmoF3	Pearson Correlation	-.121**
	Sig. (2-tailed)	.010
	N	450
CharmoF4	Pearson Correlation	-.092**
	Sig. (2-tailed)	.052
	N	450
CharmoT	Pearson Correlation	-.121**
	Sig. (2-tailed)	.011

	N	450
Family support	Pearson Correlation	.861
	Sig. (2-tailed)	.000
	N	450
Non family support	Pearson Correlation	.701
	Sig. (2-tailed)	.000
	N	450
Social support	Pearson Correlation	1

Correlations

		Charmo F1	Charmo F2	Charmo F3	Charmo F4	Charm oT	Family support	Non family support
Social support	Sig. (2-tailed)	.105	.086**	.010**	.052**	.011**	.000	.000
	N	450	450	450	450	450	450	450

Correlations

		Social support
Social support	Sig. (2-tailed)	
	N	450

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Traditional Religious Belief	450	7	20	17.65	2.374
Psi	450	4	20	13.51	2.728
Witchcraft	450	6	20	15.78	2.690
Superstition	450	3	15	7.93	2.618
Spiritualism	450	4	20	13.64	3.131
Extraordinary Life Forms	450	3	15	11.11	2.259
Precognition	450	4	20	13.20	2.958
Paranormal Belief	450	51	126	92.82	11.756
Valid N (listwise)	450				

Correlations

Correlations

		Charmophobia	Traditional Religious Belief	PSi	Witchcraft	Superstition	Spiritualism
Charmophobia	Pearson Correlation	1	.057	.152**	.072	.311**	.254**
	Sig. (2-tailed)		.229	.001	.125	.000	.000
	N	450	450	450	450	450	450
Traditional Religious Belief	Pearson Correlation	.057	1	.076	.425**	-.178**	.169**
	Sig. (2-tailed)	.229		.110	.000	.000	.000
	N	450	450	450	450	450	450
Psi	Pearson Correlation	.152**	.076	1	.256**	.323**	.414**
	Sig. (2-tailed)	.001	.110		.000	.000	.000
	N	450	450	450	450	450	450
Witchcraft	Pearson Correlation	.072	.425**	.256**	1	.071	.345**
	Sig. (2-tailed)	.125	.000	.000		.132	.000
	N	450	450	450	450	450	450
Superstition	Pearson Correlation	.311**	-.178**	.323**	.071	1	.341**
	Sig. (2-tailed)	.000	.000	.000	.132		.000
	N	450	450	450	450	450	450

Spiritualism	Pearson Correlation	.254**	.169**	.414**	.345**	.341**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	450	450	450	450	450	450
Extraordinary Life Forms	Pearson Correlation	.166**	.204**	.323**	.477**	.246**	.489**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	450	450	450	450	450	450
Precognition	Pearson Correlation	.294**	.033	.345**	.190**	.415**	.522**

Correlations

		Extraordinary Life Forms	Precognition	Paranormal Belief	Family support	Non family support	Social support
Charmophobia	Pearson Correlation	.166	.294	.306**	-.067	-.138**	-.122**
	Sig. (2-tailed)	.000	.000	.000	.157	.003	.010
	N	450	450	450	450	450	450
Traditional Religious Belief	Pearson Correlation	.204	.033	.370	-.009**	-.038**	-.027**
	Sig. (2-tailed)	.000	.485	.000	.844	.421	.572
	N	450	450	450	450	450	450
Psi	Pearson Correlation	.323**	.345	.637	.022**	.002**	.017**
	Sig. (2-tailed)	.000	.000	.000	.648	.969	.722
	N	450	450	450	450	450	450
Witchcraft	Pearson Correlation	.477	.190**	.622**	-.048	-.151	-.114**
	Sig. (2-tailed)	.000	.000	.000	.307	.001	.015
	N	450	450	450	450	450	450
Superstition	Pearson Correlation	.246**	.415**	.521**	.018	-.013	.006**
	Sig. (2-tailed)	.000	.000	.000	.708	.783	.896
	N	450	450	450	450	450	450
Spiritualism	Pearson Correlation	.489**	.522**	.777**	-.029**	-.015**	-.029
	Sig. (2-tailed)	.000	.000	.000	.542	.758	.542
	N	450	450	450	450	450	450

Extraordinary Life Forms	Pearson Correlation	1**	.439**	.713**	-.046**	-.124**	-.099**
	Sig. (2-tailed)		.000	.000	.334	.008	.037
	N	450	450	450	450	450	450
Precognition	Pearson Correlation	.439**	1	.698**	-.004**	-.075**	-.042**

Correlations

		Charmophobia	Traditional Religious Belief	PSi	Witchcraft	Superstition	Spiritualism
Precognition	Sig. (2-tailed)	.000	.485	.000**	.000	.000**	.000**
	N	450	450	450	450	450	450
	Pearson Correlation	.306	.370	.637	.622	.521	.777
Paranormal Belief	Sig. (2-tailed)	.000	.000	.000	.000**	.000**	.000**
	N	450	450	450	450	450	450
	Pearson Correlation	-.067	-.009	.022	-.048	.018	-.029
Family support	Sig. (2-tailed)	.157**	.844	.648	.307**	.708**	.542**
	N	450	450	450	450	450	450
	Pearson Correlation	-.138	-.038	.002	-.151	-.013	-.015
Non family support	Sig. (2-tailed)	.003	.421**	.969**	.001	.783	.758**
	N	450	450	450	450	450	450
	Pearson Correlation	-.122	-.027	.017	-.114	.006	-.029
Social support	Sig. (2-tailed)	.010**	.572**	.722**	.015	.896	.542**
	N	450	450	450	450	450	450

correlations

		Extraordinary Life Forms	Precognition	Paranormal Belief	Family support	Non family support	Social support
Precognition	Sig. (2-tailed)	.000		.000**	.926	.113**	.370**
	N	450	450	450	450	450	450
Paranormal Belief	Pearson Correlation	.713	.698	1	-.022	-.091	-.064

	Sig. (2-tailed)	.000	.000		.648**	.053**	.178**
	N	450	450	450	450	450	450
Family support	* Pearson Correlation	-.046	-.004	-.022	1	.242	.861
	Sig. (2-tailed)	.334**	.926	.648		.000**	.000**
	N	450	450	450	450	450	450
Non family support	Pearson Correlation	-.124	-.075	-.091	.242	1	.701
	Sig. (2-tailed)	.008	.113**	.053**	.000		.000**
	N	450	450	450	450	450	450
Social support	Pearson Correlation	-.099	-.042	-.064	.861	.701	1
	Sig. (2-tailed)	.037**	.370**	.178**	.000	.000	
	N	450	450	450	450	450	450

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Correlations

Correlations

		Paranormal Belief	CharmoF1	CharmoF2	CharmoF3	CharmoF4	CharmoT
Paranormal Belief	Pearson Correlation	1	.256**	.222**	.262**	.232**	.307**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	450	450	450	450	450	450
CharmoF1	Pearson Correlation	.256**	1	.352**	.512**	.596**	.738**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	450	450	450	450	450	450
CharmoF2	Pearson Correlation	.222**	.352**	1	.407**	.564**	.734**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	450	450	450	450	450	450
CharmoF3	Pearson Correlation	.262**	.512**	.407**	1	.523**	.808**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	450	450	450	450	450	450

CharmoF4	Pearson Correlation	.232**	.596**	.564**	.523**	1	.857**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	450	450	450	450	450	450
CharmoT	Pearson Correlation	.307**	.738**	.734**	.808**	.857**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	450	450	450	450	450	450

** . Correlation is significant at the 0.01 level (2-tailed).

Correlations

Correlations

		Paranormal Belief	CharmoF 1	CharmoF 2	CharmoF 3	CharmoF 4	Charmo T	Traditional Religious Belief
Paranormal Belief	Pearson Correlation	1	.256**	.222**	.262**	.232**	.307**	.370**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	450	450	450	450	450	450	450
CharmoF1	Pearson Correlation	.256**	1	.352**	.512**	.596**	.738**	-.081
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.087
	N	450	450	450	450	450	450	450
CharmoF2	Pearson Correlation	.222**	.352**	1	.407**	.564**	.734**	.191**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	450	450	450	450	450	450	450
CharmoF3	Pearson Correlation	.262**	.512**	.407**	1	.523**	.808**	.031
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.508
	N	450	450	450	450	450	450	450
CharmoF4	Pearson Correlation	.232**	.596**	.564**	.523**	1	.857**	-.002
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.973
	N	450	450	450	450	450	450	450
CharmoT	Pearson Correlation	.307**	.738**	.734**	.808**	.857**	1	.051
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.282

	N	450	450	450	450	450	450	450
Traditional Religious Belief	Pearson Correlation	.370**	-.081	.191**	.031	-.002	.051	.1
	Sig. (2-tailed)	.000	.087	.000	.508	.973	.282	
	N	450	450	450	450	450	450	450
Psi	Pearson Correlation	.637**	.189**	.087	.087	.124**	.146**	.076

Correlations

		Psi	Witchcraft	Superstition	Spiritualism	Extraordinary Life Forms	Precognition
Paranormal Belief	Pearson Correlation	.637	.622**	.521**	.777**	.713**	.698**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	450	450	450	450	450	450
CharmoF1	Pearson Correlation	.189**	.002	.292**	.241**	.114**	.305**
	Sig. (2-tailed)	.000	.971	.000	.000	.015	.000
	N	450	450	450	450	450	450
CharmoF2	Pearson Correlation	.087**	.166**	.083	.113**	.184**	.164**
	Sig. (2-tailed)	.066	.000	.080	.016	.000	.000
	N	450	450	450	450	450	450
CharmoF3	Pearson Correlation	.087**	.077**	.268**	.207	.190**	.264**
	Sig. (2-tailed)	.064	.104	.000	.000	.000	.000
	N	450	450	450	450	450	450
CharmoF4	Pearson Correlation	.124**	.030**	.298**	.192**	.139	.209**
	Sig. (2-tailed)	.008	.531	.000	.000	.003	.000
	N	450	450	450	450	450	450
CharmoT	Pearson Correlation	.146**	.090**	.299**	.236**	.203**	.294
	Sig. (2-tailed)	.002	.055	.000	.000	.000	.000
	N	450	450	450	450	450	450
Traditional Religious Belief	Pearson Correlation	.076**	.425	-.178**	.169	.204	.033
	Sig. (2-tailed)	.110	.000	.000	.000	.000	.485
	N	450	450	450	450	450	450
Psi	Pearson Correlation	1**	.256**	.323	.414	.323**	.345**

Correlations

		Paranormal Belief	CharmoF 1	CharmoF 2	CharmoF 3	CharmoF 4	Charmo T	Traditional Religious Belief
Psi	Sig. (2-tailed)	.000	.000**	.066**	.064**	.008**	.002**	.110**
	N	450	450	450	450	450	450	450
	Pearson Correlation	.622	.002	.166	.077	.030	.090	.425
Witchcraft	Sig. (2-tailed)	.000**	.971	.000**	.104**	.531**	.055**	.000
	N	450	450	450	450	450	450	450
	Pearson Correlation	.521	.292	.083	.268	.298	.299	-.178
Superstition	Sig. (2-tailed)	.000**	.000**	.080	.000**	.000**	.000**	.000**
	N	450	450	450	450	450	450	450
	Pearson Correlation	.777	.241	.113	.207	.192	.236	.169
Spiritualism	Sig. (2-tailed)	.000**	.000**	.016**	.000	.000**	.000**	.000
	N	450	450	450	450	450	450	450
	Pearson Correlation	.713	.114	.184	.190	.139	.203	.204
Extraordinary Life Forms	Sig. (2-tailed)	.000**	.015**	.000**	.000**	.003	.000**	.000
	N	450	450	450	450	450	450	450
	Pearson Correlation	.698	.305	.164	.264	.209	.294	.033
Precognition	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000**	.000	.485
	N	450	450	450	450	450	450	450

Correlations

		Psi	Witchcraft	Superstition	Spiritualism	Extraordinary Life Forms	Precognition
Psi	Sig. (2-tailed)		.000**	.000**	.000**	.000**	.000**
	N	450	450	450	450	450	450
	Pearson Correlation	.256	.1	.071	.345	.477	.190
Witchcraft	Sig. (2-tailed)	.000**		.132**	.000**	.000**	.000**

	N	450	450	450	450	450	450
Superstition	Pearson Correlation	.323	.071	1	.341	.246	.415
	Sig. (2-tailed)	.000**	.132**		.000**	.000**	.000**
	N	450	450	450	450	450	450
Spiritualism	Pearson Correlation	.414	.345	.341	1	.489	.522
	Sig. (2-tailed)	.000**	.000**	.000**		.000**	.000**
	N	450	450	450	450	450	450
Extraordinary Life Forms	Pearson Correlation	.323	.477	.246	.489	1	.439
	Sig. (2-tailed)	.000**	.000**	.000**	.000**		.000**
	N	450	450	450	450	450	450
Precognition	Pearson Correlation	.345	.190	.415	.522	.439	1
	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000**	
	N	450	450	450	450	450	450

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Reliability

Scale: RPBS (Full Scale)

Case Processing Summary

		N	%
Cases	Valid	450	100.0
	Excluded ^a	0	.0
	Total	450	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.813	26

Correlation

Correlations

		CharmoF 1	CharmoF 2	CharmoF 3	CharmoF 4	Charmo T	Family support	Non family support
CharmoF1	Pearson Correlation	1	.352**	.512**	.596**	.738**	-.051	-.075
	Sig. (2-tailed)		.000	.000	.000	.000	.283	.112
	N	450	450	450	450	450	450	450
CharmoF2	Pearson Correlation	.352**	1	.407**	.564**	.734**	-.061	-.069
	Sig. (2-tailed)	.000		.000	.000	.000	.196	.143
	N	450	450	450	450	450	450	450
CharmoF3	Pearson Correlation	.512**	.407**	1	.523**	.808**	-.066	-.138**
	Sig. (2-tailed)	.000	.000		.000	.000	.163	.003
	N	450	450	450	450	450	450	450
CharmoF4	Pearson Correlation	.596**	.564**	.523**	1	.857**	-.056	-.097*
	Sig. (2-tailed)	.000	.000	.000		.000	.238	.040
	N	450	450	450	450	450	450	450
CharmoT	Pearson Correlation	.738**	.734**	.808**	.857**	1	-.075	-.125**
	Sig. (2-tailed)	.000	.000	.000	.000		.113	.008
	N	450	450	450	450	450	450	450
Family support	Pearson Correlation	-.051	-.061	-.066	-.056	-.075	1	.242**
	Sig. (2-tailed)	.283	.196	.163	.238	.113		.000
	N	450	450	450	450	450	450	450
Non family support	Pearson Correlation	-.075	-.069	-.138**	-.097*	-.125**	.242**	1
	Sig. (2-tailed)	.112	.143	.003	.040	.008	.000	
	N	450	450	450	450	450	450	450
Social support	Pearson Correlation	-.076	-.081	-.121*	-.092	-.121*	.861**	.701**

Correlations

		Social support	
CharmoF1	Pearson Correlation		-.076

	Sig. (2-tailed)	.105
	N	450
	Pearson Correlation	-.081**
CharmoF2	Sig. (2-tailed)	.086
	N	450
	Pearson Correlation	-.121**
CharmoF3	Sig. (2-tailed)	.010
	N	450
	Pearson Correlation	-.092**
CharmoF4	Sig. (2-tailed)	.052
	N	450
	Pearson Correlation	-.121**
CharmoT	Sig. (2-tailed)	.011
	N	450
	Pearson Correlation	.861
Family support	Sig. (2-tailed)	.000
	N	450
	Pearson Correlation	.701
Non family support	Sig. (2-tailed)	.000
	N	450
Social support	Pearson Correlation	1

Correlations

	CharmoF 1	CharmoF 2	CharmoF 3	CharmoF 4	Charmo T	Family support	Non family support
Social support Sig. (2-tailed)	.105	.086**	.010**	.052**	.011**	.000	.000
N	450	450	450	450	450	450	450

Correlations

	Social support
Social support Sig. (2-tailed)	
N	450

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

FACTOR

```
/VARIABLES CB1_1 CB2_1 CB3_1 CB4_1 CB5_1 CB6_1 CB7_1 CB8_1 CB9_1 CB10_1 CB11_1 CB12_1 CB13_1 CB14_1 CB15_1  
CB16_1 CB17_1 CB18_1 CB19_1 CB20_1 CB21_1
```

```
/MISSING LISTWISE
```

```
/ANALYSIS CB1_1 CB2_1 CB3_1 CB4_1 CB5_1 CB6_1 CB7_1 CB8_1 CB9_1 CB10_1 CB11_1 CB12_1 CB13_1 CB14_1 CB15_1  
CB16_1 CB17_1 CB18_1 CB19_1 CB20_1 CB21_1
```

```
/PRINT INITIAL KMO ROTATION
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```
/FORMAT SORT BLANK(30)
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```
/PLOT EIGEN
```

```
/CRITERIA MINEIGEN(1) ITERATE(25)
```

```
/EXTRACTION PAF
```

```
/CRITERIA ITERATE(25) DELTA(0)
```

```
/ROTATION OBLIMIN
```

```
/SAVE BART(ALL)
```

```
/METHOD=CORRELATION.
```

Factor Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.879
	Approx. Chi-Square	3479.530
Bartlett's Test of Sphericity	df	210
	Sig.	.000

Communalities

	Initial
CB1_1	.307
CB2_1	.406
CB3_1	.444
CB4_1	.482
CB5_1	.501

CB6_1	.524
CB7_1	.135
CB8_1	.434
CB9_1	.479
CB10_1	.434
CB11_1	.470
CB12_1	.361
CB13_1	.539
CB14_1	.562
CB15_1	.336
CB16_1	.357
CB17_1	.456
CB18_1	.534
CB19_1	.474
CB20_1	.294
CB21_1	.360

Extraction Method: Principal Axis Factoring.

Total Variance Explained

Factor	Initial Eigenvalues			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total
1	6.818	32.468	32.468	5.021
2	1.753	8.349	40.818	3.082
3	1.492	7.106	47.923	1.632
4	1.389	6.612	54.536	4.745
5	1.022	4.869	59.405	1.877
6	.889	4.231	63.636	
7	.833	3.968	67.604	
8	.752	3.580	71.184	
9	.714	3.402	74.586	

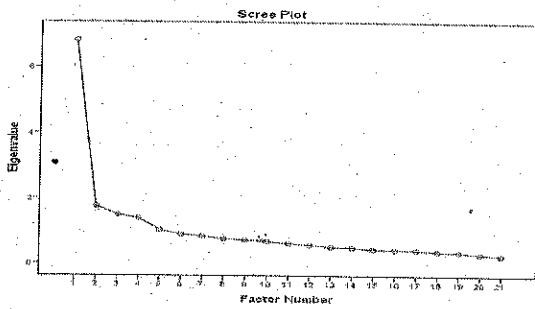
10	.672	3.202	77.787
11	.607	2.891	80.678
12	.562	2.676	83.354
13	.502	2.389	85.743
14	.487	2.319	88.062
15	.431	2.053	90.115
16	.417	1.986	92.101
17	.411	1.957	94.058
18	.365	1.736	95.794
19	.353	1.679	97.473

Total Variance Explained

Factor	Initial Eigenvalues			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total
20	.284	1.353	98.826	
21	.247	1.174	100.000	

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.



Factor Matrix^a

--

a. Attempted to extract 5 factors. More than 25 iterations required.
 (Convergence=.002).
 Extraction was terminated.

Pattern Matrix^a

	Factor				
	1	2	3	4	5
CB11_1	.753				
CB13_1	.753				
CB14_1	.592				
CB10_1	.510				
CB12_1	.498				
CB6_1	.396			-.323	
CB18_1		-.811			
CB17_1		-.701			
CB19_1		-.645			
CB15_1			.777		
CB16_1			.651		
CB4_1				-.728	
CB2_1				-.687	
CB3_1				-.669	
CB1_1				-.556	
CB5_1				-.458	
CB9_1				-.421	
CB8_1				-.398	
CB20_1					.564
CB21_1					.500
CB7_1					

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.^a

a. Rotation converged in 11 iterations.

Structure Matrix

	Factor				
	1	2	3	4	5
CB13_1	.751			-.437	.323
CB11_1	.736			-.393	
CB14_1	.721	-.432		-.525	
CB6_1	.642			-.569	.428
CB10_1	.618			-.417	.383
CB12_1	.556	-.384		-.338	
CB18_1	.346	-.814		-.342	
CB17_1	.344	-.730		-.315	
CB19_1	.391	-.707		-.434	
CB7_1					
CB15_1			.750		
CB16_1			.672		
CB4_1	.472			-.746	
CB3_1	.364	-.417		-.690	
CB2_1	.398			-.675	
CB5_1	.531			-.603	.430
CB9_1	.540			-.585	
CB8_1	.504	-.369		-.573	.309
CB1_1				-.552	
CB21_1	.485			-.334	.609
CB20_1	.374				.595

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

Factor Correlation Matrix

Factor	1	2	3	4	5
1	1.000	-.392	.265	-.578	.413
2	-.392	1.000	-.107	.404	-.051
3	.265	-.107	1.000	-.260	.052

4	-.578	.404	-.260	1.000	-.205
5	.413	-.051	.052	-.205	1.000

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

FACTOR

Scale: Factor 1

Case Processing Summary

		N	%
Cases	Valid	450	100.0
	Excluded ^a	0	.0
	Total	450	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.683	2

RELIABILITY

/VARIABLES=CB18_1 CB17_1 CB19_1

/SCALE('Factor 2') ALL

/MODEL=ALPHA.

Reliability

Scale: Factor 2

Case Processing Summary

		N	%
Cases	Valid	450	100.0
	Excluded ^a	0	.0
	Total	450	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.801	3

RELIABILITY

/VARIABLES=CB4_1 CB2_1 CB9_1 CB8_1

/SCALE('Factor 4') ALL

/MODEL=ALPHA.

Reliability

Scale: Factor 4

Case Processing Summary

		N	%
Cases	Valid	450	100.0
	Excluded ^a	0	.0
	Total	450	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.762	4

RELIABILITY

/VARIABLES=CB20_1 CB21_1 CB10_1 CB6_1

/SCALE('Factor 5') ALL

/MODEL=ALPHA.

Reliability

Scale: Factor 5

Case Processing Summary

		N	%
Cases	Valid	450	100.0
	Excluded ^a	0	.0
	Total	450	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.703	4

RELIABILITY

/VARIABLES=CB20_1 CB21_1 CB10_1 CB6_1 CB11_1 CB13_1 CB18_1 CB17_1 CB19_1 CB4_1 CB2_1 CB8_1 CB9_1

/SCALE('Charmophobia full scale') ALL

/MODEL=ALPHA.

Reliability

Scale: Charmophobia full scale

Case Processing Summary

		N	%
Cases	Valid	450	100.0
	Excluded ^a	0	.0
	Total	450	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.863	13