

ASSESSMENT OF FRAGRANCES AND PERFUMES AS CHANNELS OF NON- VERBAL COMMUNICATION AMONG COMMUNICATION ARTS FEMALE STUDENTS OF UNIVERSITY OF UYO

Department of Advertising and Marketing Communication
Faculty of Communication and Media Studies, University of Uyo, Nigeria
omita25@yahoo.com 08101194999

DR. UDUOT IWOK

Department of Public Relations
Faculty of Communication and Media Studies, University of Uyo, Nigeria

ITA, JEDIDIAHAYOMIDE

Faculty of Communication and Media Studies, University of Uyo, Nigeria

ABSTRACT

The study, an assessment of fragrances and perfumes as a channel of non-verbal communication among Communication Arts Female Students of University of Uyo, sought among others to ascertain the extent of understanding of fragrances and perfumes among Communication Arts Female Students of University of Uyo; examine the uses of fragrances and perfumes as a nonverbal channels of communication among Communication Arts Female Student of University of Uyo and also determine examine the factors that influence the choice of fragrances among Communication Arts Female Students of University of Uyo. The study adopted a survey research method with the use of personal interviews as means of data gathering. The population of the study is the entire Female Communication Arts Students which was put at 468 approximately. A sample size of 50 students was purposively drawn from two levels (third and final year) using convenience sampling technique. Findings indicated that 64% of respondents had a good understanding about the nature of fragrance and perfume while 36% don't have any knowledge about their fragrance usage. Findings also showed that four major factors were identified as the reason for choice of perfumes and fragrance usage namely affordability, preferences and brand loyalty, functionality and destination. Based on these findings, it was recommended that Female students should be aware of the nonverbal cues that they intend to communicate through their use of perfumes to ensure that they are communicating intentionally.

KEY WORDS: Perfumes, Fragrances. Non Verbal Communication,
Females

Introduction

It is important to note that the ability to smell and to interpret what each distinct smell stands for can be delicate and difficult at the same time. So looking at the communicativeness of fragrances, it may evoke different interpretation as there are different readers of this study. According to Lewis (2015), "a number of behavioral studies have demonstrated that smells trigger more vivid emotional memories and are better at inducing that feeling of 'being brought back in time' than images."

According to Sabanoglu (2022), fragrance is a multi-billion dollar industry, proving that people place some degree of importance on controlling what they choose to smell like. It is predicted that this trend will continue. According to Wood (2014), "the industry revenue is forecast to reach an estimated \$39.3 billion by 2018,"(p.1). In Nigeria to underscore the importance attached to fragrances, the industry is currently said to be worth more than 2 billion dollars as at 2018 and expected to grow exponentially in 2021 and beyond, (NBS 2021).

Perfumes play a special role in personal communication. Often underestimated, this aspect of perfumes has much more ancient roots than you would think. In the perfumed trail that accompanies the history of man, many great characters, starting with Solomon to Napoleon, only to reach today's actors, footballers and entrepreneurs, have chosen their personal scented ambassador. At the opening of the tomb of Tutankamon fragrances could still be smelled 3,300 years after the burial. Wealthy subjects were even required to use perfume at least once a day and the hieroglyphics depict women with cones of wax on their heads which melted in the heat and dispersed these preparations rich with fragrances over the body, moisturising and scenting the skin of the Egyptians. In Cleopatra's day, the perfume known by the name of Kyphi was extremely popular. Persia was famous for its Rose of Damascus and for the use of scented baths, while the first liquid perfumes in oil, widely used, for example, by athletes, first appeared with the Greeks. The most popular fragrances in the United States tend to have one thing in common, that is Vanilla. Ellena (1996, p.3)) noted that Americans "...who consume three quarters of the world's vanilla output, have a pronounced preference for sweet vanilla fragrances." This high level of vanilla consumption pairs well with vanilla fragrances: "Since the skin reveals everything that the body metabolizes, everyone's skin smells like what he or she eats, and this smell naturally combines with the perfume or eau de toilette that he or she is wearing" (p. 3). Perhaps vanilla has gained popularity because of its relaxing effect. A study conducted by Warrenberg (2005) testing the effect of fragrance on emotion found "results for clementine, a citrus aroma, versus vanilla. Both are equally pleasant, but the former is more stimulating and the latter more relaxing," (p.248). Vanilla

seems like a pleasant and inoffensive choice in fragrance: it is mild, warm, and smells like comfort food. However, fragrance also has a rich legacy within religion, history, and culture.

Perfume has largely moved from its role of communication between the land and the divine to communication between men. And this communication, much more complex and elaborate than you would think, is now subject to careful study particularly in the field of olfactory marketing and motivational techniques. Many stores now characterize their spaces with perfumes/logos (for example, Colette or Abercrombie) and large companies use scents in their workplaces for motivational purposes.

Each one of us receives characteristic and indicative messages by just looking at or listening to a person. His/her clothing, their chosen accessories, haircut, gestures, posture and tone of voice certainly provide us with clues as to their character, social position, friendly or aggressive attitude, conformity to the common aesthetic sense or opposition to it. It is clear that we expect the perfume we smell on that person also to be coherent with the sensations and opinions that we have formed and that if, on the other hand, it were not so, a feeling of suspicion would be aroused or we would at least be likely to take a cautious approach. This is the basis for the increasingly strong requirement to choose perfume very carefully, as it is one of the messages that characterises us as individuals like personal style. It is against this increasing role of perfume or scent that this study seeks to investigate the communicativeness of perfumes as perceived by Female Students of the Department of Communication Arts, University of Uyo.

Statement of the Problem

According to DeVito (2011), it is obvious we “communicate nonverbally through a wide range of channels: the body, the face and eyes, space, artifacts, touch, paralanguage and silence, and time.” In this case, artifactual communication includes the use of body adornment with fragrance as a channel of nonverbal communication. Essentially, the use of fragrance in an intercultural setting can communicate whether you understand the culture or not. Therefore the intent of this study is to ask the question: Why do Communication Arts Female Students in the University of Uyo wear perfume and how do they choose what perfume to wear? Does the perfume worn by them communicate any message to people?

Research Objectives

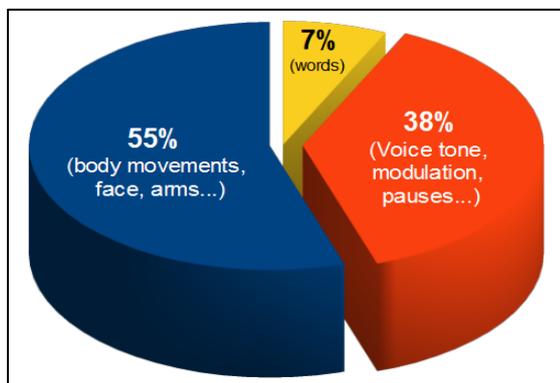
- (i) Ascertain the extent of understanding of Communication Arts Female Students of University of Uyo about fragrances and perfumes.

- (ii) Examine the uses of fragrances and perfumes as a nonverbal communication channels among Communication Arts Female Students of University of Uyo.
- (iii) Examine the factors that influence the choice of fragrances among Communication Arts Female Students of University of Uyo.

Literature Review

The Concept of Non Verbal Communication

Nonverbal messages in human communication are everything that goes beyond spoken or written word. Communication researcher Mehrabian (1981) discovered that during communication, only 7 percent of meaning comes from the words used (i.e. verbal communication) with the remaining 93 percent coming from tone of voice and body language (i.e. nonverbal communication). The following is a diagram that pictorially represents Mehrabian's communication formula:



Mehrabia's communication model.

Neuliep (2015) stated that "...nonverbal communication focuses on the messages people send to each other that do not contain words, such as messages sent through body motions; vocal qualities; and the use of time, space, artifacts, dress, and even smell. The importance of nonverbal communication becomes apparent when reviewing communication research.

According to Hall (1973) nonverbal communication is "...the silent language— the language of behavior." In other words the language that makes people act negatively or positively without any trace of verbalization or printed forms. Many researchers have developed various categories of nonverbal communication.

Neuliep (2015) identified the following categories or codes of nonverbal communication which will be used for the purpose of this study: kinesics, paralanguage, proxemics, haptics, chronemics, physical appearance

and dress, olfactics Kinesics. According to Neuliep (2015), "Kinesic behavior, or body movement, includes gestures, hand and arm movements, leg movements, facial expressions, eye gaze and blinking, and stance or posture." Although all of these channels can be used in nonverbal communication, messages are primarily sent via the face, hands, and arms. A popular term for kinesics is body language.

Paralanguage.

Paralanguage refers to voice characteristics like pace of speech, pitch, and volume. One can often identify if a speaker is nervous or confident based on paralanguage. Neuliep (2015) goes on to state, "through paralanguage, people communicate their emotional state, veracity, and sincerity."

Proxemics.

Proxemics is the study of space and the observance of personal space when communicating. According to Neuliep (2015), by studying proxemics "...we can learn how people express intimacy and power." Proxemics differs greatly among various cultures. The implication here is that spaces differs with cultures, while some express intimacy through closed space to others given their religious and cultural bias expressed through form of intimacy.

Haptics.

Haptics is tactile or touch communication. Common forms of haptics are shaking hands or kissing the cheek. According to Axtell (2008), "psychologists regard the handshake as one of the most powerful of all tactile contacts." So one can assess one's confidence level through the handshake.

Chronemics.

Chronemics is the use of time which communicates punctuality and status. "A culture's concept of time is its philosophy toward the past, present and future, and the importance or lack of importance it places on time," (Samovar & Porter, 2019). Physical appearance and dress (or artifactual communication) is communication through such things as color, clothing, hairstyle, jewelry, or body art. These items can communicate social class, attitude, style, level of convention, and creativity. Some nonverbal communication researchers include olfactory communication in this code, however, for the purpose of this study olfactics will be a separate category.

Olfactics.

Olfactics is communication through smell. Olfactics can communicate status, ethnicity, and social class. For the purpose of the study, this research will focus

specifically on olfactics as a method of nonverbal communication. Aune and Aune (2008) stated, “the study of olfactics includes research on how people adorn themselves with smells such as perfume.” According to Goldney and Gunning (2008), “whenever the olfactory bulb in the brain detects a smell, a chemical message is immediately sent directly to the limbic system, an enigmatic, primordial part of the right hemisphere of the brain. The limbic system contains the keys to our emotions, our lust, our perceptions, and our imaginations. The result is immediate. When we smell, we feel”

Anyone with a working sense of smell cannot help but receive olfactive communication, as according to Douce and Janssens (2011, p.224), “a human being breathes approximately 15,000 to 20,000 times a day. As such, the nose is an instrument that receives communication continuously.” Breathing is an automatic physiological function, we are mostly unaware of receiving these continuous olfactive messages. Olfaction can communicate emotion since it is suggested that it influences mood, memory, emotions, mate choice, the immune system and the endocrine system (hormones)” However, the sense of smell is the least understood of all the human senses.

Perfumes and Fragrance

Mazzoni (2020) defines a fragrance as a combination of organic compounds that produces a distinct smell or odour while a perfume is a liquid mixture of chemicals used to emit a pleasant odour. It is formed from fragrant essential oils derived from plants and spices or synthetic aromatic compounds. Cosmetic fragrances applied to a person’s body to emit a pleasant smell include perfume, cologne, and aftershave. Perfumes are classified into 5 main groups loosely based on their concentration of aromatic compounds.

Parfum or extrait has a 20–30% concentration of fragrance. As parfum contains a high concentration of fragrance, it is typically the most expensive. It is usually a heavier, oilier product than the other types of perfume, and tends to be used more sparingly. The smell is long-lasting – an average of 8 hours and up to 24 hours. Eau de parfum or parfum de toilette has a 15–20% concentration of fragrance. Eau de parfum contains a greater concentration of alcohol and water and is generally cheaper than parfum. It is a lighter product and has a shorter duration of around 4 to 5 hours. Eau de parfum is the most common fragrance type and is the base for other fragrance types.

Eau de toilette has a 5–15% concentration of fragrance. Eau de toilette has a low concentration of essential oils and a high concentration of alcohol. It dissipates quickly and lasts 2 to 3 hours. It is a cheaper option and often used for daywear.

Eau de cologne has a 2-4% concentration of fragrance. Eau de cologne has a much lower fragrance concentration to create a very light formulation. It is primarily used in fragrances designed for males as an aftershave or splash-on fragrance. It dissipates quickly and lasts about 2 hours. Cologne, by definition, refers to 'eau de cologne'. However, the term 'cologne' is in common use in the English language to denote any fragrance worn by a male. Eau fraiche has a 1-3% concentration of fragrance. Eau fraiche has the lowest fragrance concentration of all types of parfum, and is diluted with water rather than alcohol or oil.

Common uses for eau fraiche include mists, splashes, and veils that are very light and dissipate within an hour. Perfumes are composed of three structural parts – the head, middle, and base notes – to provide the first impression, body, and lasting impression of the fragrance respectively after the application of a perfume. The presence of one note may alter the perception of another.

The head note, or top note, provides the initial scent that forms the first impression of the perfume. It has the following features: It is comprised of small light molecules that have a strong fresh scent but evaporate quickly, usually 5-30 minutes after application. Common top notes include citrus (lemon, orange), light fruits (berries), and herbs (sage, lavender).

The middle note, or heart note, masks any unpleasant initial impression of the base note and provides the main body of the scent. It is comprised of more complex molecules than top notes and has a more mellow, rounded, and balancing scent. It first appears 20-60 minutes after application, and usually lasts 2-4 hours. Tones are made from more potent florals and spices. Common middle notes include lemongrass, rose, geranium, jasmine, nutmeg, lavender, cinnamon, and coriander.

The base note adds to the middle note to boost and deepen the existing body of the scent and provide its lasting impression. It is comprised of large heavy molecules to provide a rich and smooth nature to the scent. It is typically not perceived until 30 minutes after application or during the dry-down period. Some can last over 24 hours after application.

Common base notes include cedarwood, sandalwood, vanilla, amber, patchouli, oakmoss, and musk. Another way of looking at fragrances is to understand the fragrance wheel which contemporary scent researchers Zarzo and Stanton (2009) citing Michael Edwards' *Fragrance Wheel* "...as one of the world's most comprehensive references for commercial fragrances, simplifying the classification process and showing relationships among fragrance families" (Edwards, 2021.p. 229). According to *The perfume experts' expert*, the *Fragrance Wheel* is organized according to "...dominant accords that give them their special character" going on to explain "in much the same way that vineyards classify their

vintages by grape varietal, classifying fragrances by their main accords opens up a new way for understanding the language of scent.” As you will see in the Fragrance Wheel (see illustration following), the fragrances are divided into four fragrance families:

1. Floral: The most popular of the fragrance families, floral notes are based on fresh cut flowers.
2. Oriental: The Oriental family consists of incense notes such as amber, sandalwood, and patchouli.
3. Woody: Woody notes can be based in herbal, mossy, leather, and dried wood scents.
4. Fresh: The fresh family is comprised of fruits, berries, citrus, green plants, and marine or aquatic notes.

The Fragrance Wheel



Note: From Michael Edwards - *The perfume experts' expert*. (n.d.). Retrieved May 12th, 2021, from <http://www.fragrancesoftheworld.com/fragrancewheel.aspx>

Floral perfumes/ Fragrances depict outdoor and friendliness in its communicativeness. A person who is down to earth and yet of a carefree nature who is most certainly difficult to displease and quick to smile. Although mostly women go with floral fragrances, it is not an uncommon fragrance among men

either. Of all the floral fragrances, most men prefer rose, though they prefer the dark, woody, earthy roses above the powdery, and soft roses because the former reflects drama and strength. Floral scents like gardenia demonstrate stability, a sense of being someone's "rock", always following through on set plans. It states that you are a team player type of person, and someone who does not pop into another's life fleetingly, but maintain friendships for decades.

Oriental Fragrances are spicy, warm, and musky notes. The contemporary oriental fragrances differ from their traditional forebears, but still hold the same bold notes. If you are inclined to wear perfumes like these, then you are most likely to be a night owl, naturally bold and unafraid to let your sensuality show. The oriental fragrance enthusiasts tend to be impulsive, intense, and a bit sensitive, and possess artistic inclinations. Original and creative, they are usually leaders of style with an abundance of charm and wit. In an extreme sense of way, these oriental scents express the character of the wearer in one word: hedonist. An uncompromising pursuer of the pleasures life has to offer.

Woody fragrances or Woody scents are seen as representing a solid, reliable, and easy-going kind of masculinity, often chosen by, but definitely not limited to, wedded men accompanying their wives. They also enforce general acceptability among men usually because they are popular among the males. These fragrances portray you as an earthy person, who loves the outdoors and the smell of fresh cut grass, pine trees, and the atmosphere after a thunderstorm. They also project a sense of professional and academic excellence and stability. Fragrances like sandalwood usually exude a sense of perfection. Sandalwood fans tend to have high expectations for themselves and others. These perfumes consist of earthy and natural smells such as sandalwood, cedar, vetiver, agar wood, and patchouli that many men and women have loved for centuries.

Fresh fragrances are mostly aquatic perfumes. If ones love aquatic scents with marine and salty notes it means you are often free-spirited, casual and cool, yet elegant and quite intellectual. Aquatic fragrances which are reminiscent of windswept coastlines and sea spray are the perfect scents for dreamers. Balanced and nature loving, the people who love aquatic fragrances usually shy away from the urban jungles, and their idea of a perfect holiday is a remote island with a state-of-the-art library. Aquatic perfume fans tend to be spontaneous, yet at the same time are more than willing to go with the flow. Fit and energetic in nature, they possess an unsurprising love for water.

Theoretical Framework

Nonverbal Communication Theory

The first scientific study of nonverbal communication was seen in Charles Darwin's book *The Expression of the Emotions in Man and Animals*. He argued that all mammals show emotions reliably in their faces. Today, studies on nonverbal communication range across a number of fields, including linguistics, semiotics, anthropology, and social psychology. Nonverbal communication plays an important role in everyday interactions with the different people we meet. The human body is so incredibly versatile that it can send thousands of nonverbal messages. When we encounter people, we usually look first at their face to see if their expression reflects what they are saying. Then we listen to the tone of their voice to check if there are any indications of the emotions involved, and finally, we listen to the spoken words to get the actual meaning. Generally, we make judgments about the nature and behavior of persons based on their nonverbal and visual cues rather than on their verbal communication

Methodology

The study adopted a survey method with the use of interviews as a method of data gathering. The population of the study is the entire Female Communication Arts Students which was tentatively put at 468. This study had a sample size of 50 students purposively drawn from two levels (third and final year) in the department on the basis of availability. This was done using a Whatsapp group and students were asked to indicate their interest in the study by joining the group. Students that indicated interest were 50 and thus were used for the study.

The use of female students in studies relating to fragrance and perfume as nonverbal communication channels is justified for several reasons. Firstly, women are the primary consumers of fragrances and perfumes, and therefore, it is important to understand their perspectives and attitudes towards these products (Alonso & Marchetti, 2008). Secondly, research has shown that women are more sensitive to smells than men, and they have a greater ability to detect and discriminate between different scents. As a result, female participants are more likely to provide accurate and reliable data in studies related to fragrances and perfumes (Aune & Aune, 2018). Thirdly, female students are a convenient and accessible population for research purposes, as they are often available on university campuses and can be easily recruited for studies.

Data Analysis

The data were analyzed using a manual thematic analysis method. Alhojailan (2016) described the advantages of using thematic analysis when stating "By using

Thematic Analysis, it is possible to link the various concepts and opinions of participants and compare them with the data that have been gathered in different situations at different times from other or the same participants during the project. A pattern of three primary codes became apparent requiring further analysis: (a) knowledge about fragrances and perfumes used, (b) determination of fragrance choice, and (c) intended effect of fragrance(s) used. Categories were then identified within the primary codes for the purpose of more extensive analysis. For example, the primary theme Determination of Fragrance Choice was divided into categories, which are Environmental Influences (changes in season), Fitting In (formality or casualness of the destination), Personal Reward (mood enhancement), Conflict Avoidance (considering others when applying fragrance), and Image Development (enhanced professionalism).

Analysis and Interpretation

The following section contains analysis of the data collected. The analysis is presented in sequential order of the research questions and includes interpretation of the data.

Research Question One: To what extent are the female students of Communication Arts in University of Uyo exposed to fragrances and perfumes?

Of the 50 female students 32 respondents 64% (answered in the affirmative, 18 respondents representing 36% answered in the negative. However when asked if they could identify types of perfumes and fragrances using the fragrance wheel, the contrary was the reversed. Results showed that only 12 respondents representing 24% had a more technical understanding of fragrance types and 38 respondents representing 76% were totally ignorant of the fragrance wheel. The fragrance wheel includes the floral, woody, oriental and fresh.

Research Question Two: Do the female students of the Department of Communication Arts perceive fragrances and perfumes as channels of communication?

Data showed the following when analysed: Positive Self talk had 6 respondents (12%) , Pressure to fit in had 8 respondents (16%) 13 respondents (26%) went for Friendship and relationship building, Attention Seeking was identified by 9 respondents (18%) while Confidence and Uniqueness were expressed by 7 (14%) respondents and 8 (16%) respondents accordingly.

Findings from the study show that there is evidence to suggest that female students perceive fragrances and perfumes as channels of communication. Fragrances can communicate a person's personality, mood, and intention, and they can also signal

social status or group membership. Fragrances may also be used to attract potential romantic partners or to signal availability. This study corroborates a study conducted in 2015 that female college students in the United States viewed fragrances as important for self-expression and social communication (Graham & Jouhar, 2015).

Research Question Three: What are the factors that influence Communication Arts Female Students' choice of fragrances?

Data analysed showed that affordability had 13 respondents (26%), functionality had 8 respondents (16%), destination had 7 respondents 14(%) preferences and brand loyalty had 12respondents (24%), mood at the time of usage had 6 respondents (12%) and intended desired mood had 4 respondents (8%)

Summary of Findings

The following are the summary of findings:

- (i) 32 respondents representing 64% indicated a good understanding about the nature of fragrance and perfume while 18 respondents representing 36% do not have any knowledge about their fragrance usage.
- (ii) 12 respondents representing 24% had a more technical understanding of fragrance type and 38 respondents representing 76% were totally ignorant of the fragrance wheel.
- (iii) Three major themes were identified as the nonverbal messages through the use of fragrance and perfumes: Friendship and relationship building which 13 respondents (26%), Attention Seeking identified by 9 respondents (18%) and Confidence and Uniqueness by 7 respondents (14%).
- (iv) Four major factors were identified as the reason for choice of perfumes and fragrance usage namely Affordability (26%), preferences and brand loyalty (24%) Functionality (16%) and followed by Destination (14%)

Conclusion

It is clear from the study and its findings that perfumes and fragrances are vital tools of nonverbal communication and as such they share meaning from both the user to the non-users. Sometimes, what these fragrances tend to communicate may be different from what was originally intended by the perfume users. The study has demonstrated that fragrances and perfumes are indeed perceived as channels of nonverbal communication among female students. These scents are used to express one's personality, mood, and intentions, as well as to signal social status or group membership. Furthermore, the study has shown that fragrances have a significant

impact on the perceptions of others, influencing their perceptions of the wearer's attractiveness, trustworthiness, and social intelligence.

Recommendations

1. Female students should seek more information about fragrance wheel and combination of perfumes to enhance their user knowledge and maximize the different fragrance because ignorance can create wrong usage pattern.
2. Female students should be aware of the nonverbal cues that they intend to communicate through their use of perfumes, and ensure they are communicating intentionally what they want others to think about them.

References

- Alhojailan, M. (2016). *Thematic Analysis: A Critical Review of its Process and Evaluation*. London Press
- Alonso, L., & Marchetti, R. (2008). Segmentation and Consumption of Luxury Fragrances: A Means-End Chain Analysis. *Association for Consumer Research*, 2, (9) 39-46.
- Aune, R.K. & Aune, K. S. (2018). The Effects of Perfume on Perceptions of Attractiveness and Competence. In L. K. Guerrero & M L. Hecht *The Nonverbal Communication Reader* Long Grove, IL: Waveland Press, Inc.
- Axtell, R. (2008). Initiating Interaction Greetings and Beckonings Across the World. In L. K. Guerrero & M L. Hecht *The Nonverbal Communication Reader*. Long Grove, IL: Waveland Press, Inc.
- DeVito, J. (2019). *Essentials of Human Communication* (7th ed., p. 2). New York, NY: Allyn& Bacon.
- Edwards M (2008), *Fragrances of the World: Parfums du Monde 2008*. 24th ed, *Fragrances of the World*, Sidney.
- Ellena, J. C. (1996). Other Cultures - Other Fragrance. *Drug & Cosmetic Industry*, 158(3), 26- 35
- Graham, M. A., & Jouhar, R. (2015). Self-expression and social communication through fragrance: A study of female college students in the United States. *Journal of Fashion Marketing and Management: An International Journal*, 19(2), 168-182.
- Hall, E. T. (1993). *The Silent Language* New York, NY: Doubleday & Company.
- Kohl, J. V., & Francoeur, R. T. (2002). *The Scent of Eros: Mysteries of Odor in Human Sexuality*. New York: Continuum Press; 2nd ed. Lincoln NE: iUniverse Press.

- Lewis, J. (2015, January). Smells Ring Bells: How Smell Triggers Memory and Emotion. *Psychology Today*,
- Mazzoni, D (2020), Fragrances and Perfumes. [www. Dermentz .org](http://www.Dermentz.org). retrieved on January 5, 2023.
- Mintel. (2019). Female fragrance and perfume – UK – October 2019. Retrieved from <https://store.mintel.com/report/female-fragrance-and-perfume-uk-october-2019>
- Mehrabian, A. (1981). *Silent Messages* (2nd ed., p. 69). Belmont, CA: Wadsworth Publishing Company.
- Neuliep, J. (2015). *Intercultural communication: A contextual approach* (6th ed., pp. 286-315). Los Angeles, CA: Sage Publications.
- Reinarz, J. (2014). *Past scents: Historical perspectives on smell* (pp. 6-25). Chicago, IL: University of Illinois Press.
- Samovar, L. A., Porter, R. E., & McDaniel, E. R. (2019). *Communication Between Cultures* (p. 18-270). Boston, MA: Wadsworth Publishing Company.
- Schroeder, W. (2010). Understanding Fragrance In Personal Care: The connection to scent is strong, direct, and emotional. *Global Cosmetic Industry*, 178(3), 36-36.
- Zarzo, M and Stanton, D.T (2009) Understanding the Underlying Dimensions in Perfumers' Odour Perception Space as a Basis for Developing Meaningful Odor maps. *Attention, Perception and Psychophysics*, 71, 225-247