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COMPARITIVE STUDY OF THE RELATIONSHIP BETWEEN SELF-COMPASSION AND ALEXITHYMIA IN DOG OWNERS AND NON-DOG OWNERS

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Abstract
The primary objective of this research was to investigate the connection between alexithymia and self-compassion in individuals who are dog owners compared to those who are not. The research outcomes revealed a negative relation between alexithymia and self-compassion, irrespective of dog ownership. However, the groundbreaking discovery of this study lies in the significant relationship it unveiled between alexithymia and dog ownership. The study underscores the vital role of dogs in facilitating emotional well-being, support and emotional intelligence, offering a unique perspective on the therapeutic potential of pet companionship.

The research findings demonstrated that individuals who own dogs are less likely to experience alexithymia, whereas those without dogs tend to exhibit moderate to high levels of alexithymia. This suggests that the presence of dogs plays a pivotal role in assisting individuals in the regulation, expression, and identification of their emotions. Further this research is a prescriptive study for individuals who have alexithymia as the results clearly state that by being in constant contact with dogs as companion animals or pets help people to regulate their emotions and help them to cope with alexithymia.
Keywords: *Alexithymia, Companion animal, Dog Companionship Emotional Numbness , Self-Compassion*

Introduction
There has been ample research on the benefits of pet ownership/interaction with companion animals on mental and physical health. One such research was conducted by Barker and Wolen (2008) that reviewed studies published since 1980 on the advantages of human-companion animal interactions. They discovered a growing body of evidence suggesting that such interactions can yield numerous physical and mental health benefits. For pet owners, these advantages include reduced stress and anxiety, lower blood pressure, increased physical activity, decreased feelings of loneliness, and improved mental well-being. Additionally, studies on interactions with companion animals not owned by the individual, such as animal-assisted activities, also demonstrated positive outcomes, such as reduced stress and anxiety, enhanced mood, increased social engagement, and even reduced perception of pain.

Another review article by Amiot and Martens (2016) states that simply contemplating one's pet can have positive psychological effects. Research has demonstrated that the mere presence of a companion animal, whether physically or in memory, can lead to pet owners feeling more ambitious and self-assured in pursuing personal goals (Zilcha-Mano et al.,2012). The above quoted research clearly indicates the various psychological and mental health benefits one can achieve simply by being in the presence of a companion animal or a pet. The aim of this study was, thus, to compare alexithymia with self-compassion in dog owners and non-dog owners.

"Compassion " is the innate human tendency to care for and empathize with others, playing a vital role in our survival as social beings. It is a crucial skill that everyone should possess. Self-compassion, a related term is showing the same empathy and care inwards.

Kristin Neff (2003) pioneered the operational definition of self-compassion, which involves cultivating a warm and understanding attitude towards ourselves in moments of suffering, failure, or perceived inadequacy. This approach encourages one to embrace pain instead of avoiding it and to replace self-criticism with a more nurturing and supportive mindset. It involves the ability of an individual to extend kindness, understanding, and empathy to themselves, even in the harshest circumstances. It is treating oneself like treating your very own" **best friend**". Self-compassionate individuals can extend care and humility towards themselves during difficult experiences, instead of criticizing themselves. They adopt the perspective that everyone experiences suffering and makes mistakes, rather than isolating themselves from others. By accepting thoughts and emotions in a nonjudgmental way, self-compassionate individuals can cope with difficult feelings and thoughts in a more balanced and regulated manner. While some individuals may naturally possess a higher degree of self-compassion, researchers believe it's a trait that can be developed by anyone. There are various exercises, such as meditation, yoga, journaling, and others, that can help individuals enhance their self-compassion.

Numerous studies have provided evidence supporting the potential of self-compassion in enhancing emotional awareness and emotional regulation (Bakker et al., 2019; Diedrich et al., 2014; Gilbert et al., 2011; Macbeth and Gumley 2012; Neff et al., 2007). **Neff,** describes self-compassion as a comprehensive concept that comprises several sub-components. These components span a continuum from self-kindness to self-judgment, common humanity to isolation, and mindfulness to over-identification. Self-compassion has been identified as a significant indicator of mental health, with a meta-analysis showing that higher levels of self-compassion are associated with reduced levels of depression, anxiety, and stress (Macbeth and Gumley,2012). Moreover, it has been positively correlated with life satisfaction, social connectedness, optimism, curiosity, and a willingness to explore new experiences. Elevated levels of self-compassion have been linked to improved psychological well-being over time (Neff et al., 2007). Understanding unexpressed emotions fosters empathy and effective communication with others, improving the quality of interpersonal relationships, a quality often absent in individuals with alexithymia. It also hinders healthy self-reflection and the ability to recognize emotions for personal growth and self-awareness.

In 1972, Sifneos introduced an uncommon psychological concept known as 'alexithymia,' a term derived from various Greek words. Essentially, 'alexithymia' can be understood as the literal expression of "having difficulty finding words to describe emotions." or "lack of words for emotions". Alexithymia is a complex concept that involves challenges in recognizing and articulating emotional sensations, coupled with a tendency towards concrete thinking (Bagby et al., 2020). It is a personality trait characterized by individuals struggling to understand and express their own emotions. People with alexithymia find it difficult to label their emotions and regulate them effectively. They lack emotional awareness, making it challenging to experience a range of emotions.

Two Key features of Alexithymia include:

1. **Difficulty Identifying Emotions:** People with alexithymia may struggle to Identify and label their emotions accurately. They might have a general sense of feeling "good" or "bad" but find it challenging to pinpoint specific emotions such as anger, sadness, or joy.
2. **Difficulty Describing Emotions:** Even when individuals with alexithymia recognize their emotions, they may have trouble articulating or describing them to others. They might resort to vague or overly concrete descriptions when asked about their feelings.

People with alexithymia find it difficult to label their emotions and regulate them effectively. They lack emotional awareness, making it challenging to experience a range of emotions, including happiness, sadness, anger, and fear. This emotional disconnect hinders their ability to navigate their internal and external emotional landscape, resulting in difficulties in connecting with others and being understood in personal and professional relationships. Alexithymia is often inversely related to emotional resilience, making it hard for individuals to process and cope with emotions. It can lead to feeling overwhelmed in challenging situations and negatively impact an individual's overall psychological well-being. Understanding unexpressed emotions fosters empathy and effective communication with others, improving the quality of interpersonal relationships, a quality often absent in individuals with alexithymia. It also hinders healthy self-reflection and the ability to recognize emotions for personal growth and self-awareness. People with alexithymia may benefit from therapy or counselling to develop emotional awareness and articulate their emotions. Techniques like journaling or keeping an emotional diary can also help individuals become more attuned to their feelings.

The concept of self-compassion, as discussed in various studies (Bakker et al., 2019; Diedrich et al., 2014; Gilbert et al., 2011; Macbeth and Gumley 2012; Neff et al., 2007), has shown to have a notable negative relationship with alexithymia. Alexithymia, characterized by difficulties in identifying and expressing one's own emotions (Taylor et al., 1997), often leads to emotional unawareness, emotional numbness and the inability to regulate emotions effectively. This emotional disconnect can hinder an individual's capacity to extend self-compassion toward themselves. In contrast, self-compassion involves treating oneself with kindness and

understanding, especially in moments of perceived failure or suffering. It encourages acknowledging and accepting emotional pain and feelings of inadequacy as natural aspects of the human experience. Therefore, individuals with higher levels of self-compassion are better equipped to recognize and manage their emotional states, which stands in stark contrast to the challenges faced by individuals with alexithymia. Research suggests that individuals with alexithymia tend to struggle with self-compassion as they may have difficulty in both identifying their emotions and responding to them in a self-supportive and understanding manner. On the other hand, those who cultivate self-compassion are more likely to have higher emotional awareness and are better at regulating their emotions, making them less prone to the characteristics associated with alexithymia.

In summary, self-compassion and alexithymia have an inverse relationship. While self-compassion fosters emotional awareness and regulation, alexithymia impedes these aspects, making self-compassion an important factor in mitigating the challenges posed by alexithymia in an individual's emotional well-being. The main focus of this paper is a comparative study of the relationship between self-compassion and alexithymia among dog owners and non-dog owners.

Methodology

Objective

To conduct a comparative analysis of the relationship between self-compassion and alexithymia in dog owners and non-dog owners.

Participants

The study focused on a carefully selected and specific sample, comprising young adults aged 20-30 years with sample size of 55 participants. The participants came from affluent backgrounds, residing in cosmopolitan areas within the tri-city region. They were well-educated, hailing from high-income households, and had received their education in prestigious convent schools. This group was socially well-connected and belonged to the upper echelons of the upper-middle class. The inclusion and exclusion criteria was as follows:

Inclusion criteria

- Dog owners
- 20-30 years age
- High income
- Studied from convent schools
- Residing in tri-city area of Chandigarh, Mohali and Panchkula

Exclusion Criteria

- History of illness
- Above 30 years

The data was collected using standardized tools and the sample was divided into two distinct groups: those who are dog owners and those who are not. The number of years since dogs were owned were also taken into consideration. The research focused on dog owners specifically. Participants were provided with a questionnaire which measured their level of self-compassion along with the sub scales of common humanity, self-kindness, mindfulness, overall identification. self-judgement and isolation. Another variable alexithymia was also measured along the subscales of difficulty identifying feelings, difficulty describing feelings and external oriented thinking. The demographic information for the same has been represented in form of pie charts and histograms in figures 1,2 and 3.

Figure 1

Dog Owners vs Non-Dog Owners

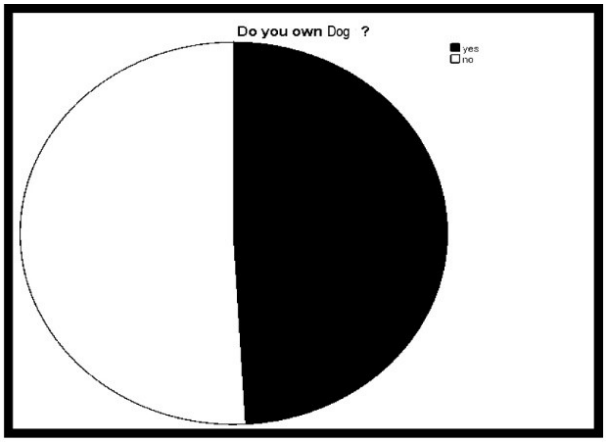

Figure 1 represents the total number of dog owners and non-dog owners that were taken as part of the study.

The number was almost equal, indicating equal representation of both.

Figure 2

Number of years since dogs owned

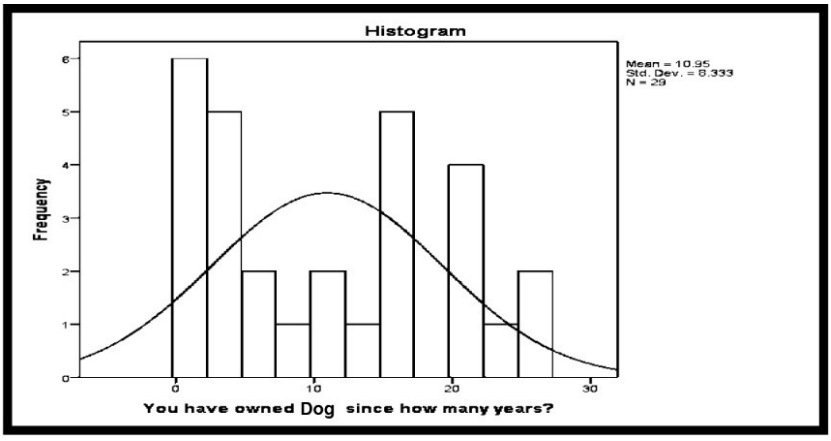

Figure 2 represents the number of years since dogs have been owned by the participants. It depicts the widespread nature of the data collected.

Measures

1. **The Toronto Alexithymia Scale (TAS-20) :** The Toronto Alexithymia scale (Bagby et al. 1994) is a self-report assessment comprising 20 items designed to measure the extent of alexithymia. It assesses alexithymia through three subscales: difficulty in describing feelings, difficulty in identifying feelings, and external-oriented thinking. Respondents provide their answers using a five-point Likert scale, where 1 represents "strongly disagree" and 5 indicates "strongly agree." Five of the items are negatively worded and require reverse scoring. To determine an individual's overall level of alexithymia, the scores from all 20 items are summed. Possible total alexithymia scores on this scale range from 20 to 100, with higher scores reflecting greater levels of alexithymia.

2. **Self-Compassion Scale- Short Form (SCS-SF):** The Self-Compassion Scale-Short Form (Raes et al.2011) is a 12-item questionnaire derived from the original 26-item Self Compassion Scale. It calculates a self-compassion score for each participant by averaging their ratings on three positive facets of self-compassion: self-kindness, common humanity, and mindfulness, as well as the reverse facets of the scale, which assess self-judgment, isolation, and over-identification. Participants are asked to rate themselves on a five- point Likert scale, ranging from 1 (almost never) to 5 (almost always), based on how they act towards themselves during difficult times. The score ranges from 12-60 where a higher score indicates higher Self Compassion.

Data Analysis

In this study descriptive statistical techniques of t-tests and correlation analysis were employed and the results were displayed with the use of pie charts and graphs.

Results

The study, yielded intriguing findings that shed light on the relationship between alexithymia, emotional articulation, and pet ownership. Notably, the results revealed a high level of statistical significance ($p<0.01$) between alexithymia and the difficulty individuals faced in describing their emotions. The t-tests for variables, Alexithymia Score, Difficulty Identifying Feelings, and Difficulty Describing Feelings produced significant t-values (-3.050, -2.104, -3.743), indicating substantial differences between individuals who own dogs and those who do not. This highlights a strong association between alexithymia and the challenge individuals encounter in expressing their emotions, particularly in people who do not own dogs. Additionally, the study found that the difficulty in identifying feelings was significant at the 0.05 level, underscoring the struggles of individuals who do not own pets in recognizing their emotions.

This identifies a positive and significant relationship between alexithymia, Difficulty Describing Feelings, and Difficulty Identifying Feelings. It further implies that individuals with higher levels of alexithymia not only encounter challenges in expressing their emotions but also face difficulties in accurately identifying them. Further t-values for factors External oriented thinking, Self-Compassion showed insignificant t-values (-1.502, .660) reflect that there was no significant difference between the dog owners and those who don't own any dogs.

Table 1

Significance level of Alexithymia, Difficulty identifying feelings, Difficulty describing feelings, External oriented thinking and Self-Compassion

FACTOR		**Levene's Test for Equality of Variances**		**t-test for Equality of Means**			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Alexithymia Score	Equal variances assumed	.637	.429	-3.050	53	**.004**	-7.721
Difficulty identifying feelings	Equal variances assumed	.023	.879	-2.104	53	**.040**	-2.876
Difficulty describing feelings	Equal variances assumed	.459	.501	-3.743	53	**.000**	-3.849
External oriented thinking	Equal variances assumed	.211	.648	-1.502	53	.139	-1.598
Self-Compassion	Equal variances assumed	.685	.411	.660	53	.512	.10483

Table 1 shows the results of a t-test for equality of means performed on five factors: Alexithymia Score, Difficulty Identifying Feelings, Difficulty Describing Feelings, External Oriented Thinking, and Self-Compassion. The test was designed to compare the means of two groups of people i.e. those who own dogs and those who don't, on these factors.

Levene's test which is a statistical test used to assess the equality of variances for a variable calculated for two or more groups has also been used. The **purpose of the test** is to compare the variances of two or more groups to see if they are equal. If the variances are equal, then the assumption of homogeneity of variance is met. This means that the variances of the populations being compared are similar, and given statistical tests that assume equal variances can be used. However, if the variances are not equal, then the assumption of homogeneity of variance is not met, and statistical tests that assume equal variances should not be used. Instead, alternative tests that do not assume equal variances should be used.

The findings are as follows:

- The t-test for Alexithymia Score revealed a statistically significant difference between the two groups. The mean alexithymia score for the first group was -7.721, while the mean alexithymia score for the second group was -2.876. This suggests that the first group (non-dog owners) had significantly higher alexithymia scores than the second group (dog owners). This also means that the variances of the alexithymia scores for the two groups are not equal and a robust test that does not assume equal variances to compare the means of the two groups for alexithymia score should be used.

- The t-test for Difficulty Identifying Feelings revealed a marginally significant difference between the two groups. The mean difficulty identifying feelings score for the first group was .023, while the mean difficulty identifying feelings score for the second group was .2876. This suggests that the first group may have had slightly higher difficulty identifying feelings than the second group. This also means that the variances of the difficulty identifying feelings scores for the two groups are not equal and a robust test that does not assume equal variances to compare the means of the two groups for difficulty identifying feelings score should be used.

- The t-test for Difficulty Describing Feelings revealed a marginally significant difference between the two groups. The mean difficulty describing feelings score for the first group was -3.849, while the mean difficulty describing feelings score for the second group was 1.598. This suggests that the first group may have had significantly higher difficulty describing feelings than the second group. This also means that the variances of the difficulty describing feelings scores for the two groups are not equal and a robust test that does not assume equal variances to compare the means of the two groups for difficulty describing feelings score should be used.

- The t-test for External Oriented Thinking revealed a statistically significant difference between the two groups. The mean external oriented thinking score for the first group was 2.11, while the mean external oriented thinking score for the second group was -1.598.

This suggests that the first group had significantly higher external oriented thinking scores than the second group. This also means that the variances of the external oriented thinking scores for the two groups are not equal and a robust test that does not assume equal variances to compare the means of the two groups for external oriented thinking score should be used.

- The t-test for Self-Compassion revealed a non-significant difference between the two groups. The mean self-compassion score for the first group was .66, while the mean self-compassion score for the second group was 512. This suggests that there may be no difference in self-compassion scores between the two groups. This also means that the variances of the self-compassion scores for the two groups are equal and a robust test that does not assume equal variances to compare the means of the two groups for self-compassion need not be used.

Table 2

Significance level of Self Kindness, Self- Judgment, Common Humanity, Isolation and Mindfulness.

Independent Samples Test							
FACTOR		**Levene's Test for Equality of Variances**		**t-test for Equality of Means**			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Self-Kindness	Equal variances assumed	3.5	0.07	1.17	53	0.247	0.372
Self-Judgment	Equal variances assumed	0.32	0.57	-0.35	53	0.726	-0.197
Common Humanity	Equal variances assumed	0.22	0.64	1.188	53	0.24	0.505
Isolation Items	Equal variances assumed	2.08	0.16	-1.06	53	0.293	-0.467
mindfulness	Equal variances assumed	0.12	0.73	-0.38	53	0.708	-0.156

Table 2 shows the results of a t-test for equality of means performed on five factors: Self Kindness, Self-Judgement, Common Humanity, Isolation Items and Mindfulness. The t-tests revealed insignificant t-values (1.170, -0.352, 1.188, -1.063, -0.377), suggesting no significant differences in these aspects between dog owners and those without dogs.

Table 3

Correlational values of Self-Compassion, External oriented thinking, difficulty identifying feelings, over identified and alexithymia.

Table 3 represents the correlational values of five factors namely, self-compassion, external oriented thinking, difficulty identifying feelings, over identified and alexithymia. The study uncovered a significant negative correlation between alexithymia and self-compassion, emphasizing the importance of developing self-compassion as a means of mitigating the effects of alexithymia. This finding implies that individuals who struggle to identify and articulate their emotions might benefit from nurturing self-compassion as a way to better comprehend and embrace their emotional experiences. This can be achieved by spending time with a dog as a companion animal or as a pet.

Correlation Values						
		Self-Compassion	**External oriented thinking**	**Difficulty identifying feelings**	**Over-identified**	**Alexithymia Score**
Self-Compassion	Pearson Correlation	1	-.033	-.617**	-.782**	-.563**
External oriented thinking	Pearson Correlation	-.033	1	.088	-.053	.408**
Difficulty identifying feeling	Pearson Correlation	-.617**	.088	1	.487**	.879**
Over-identified	Pearson Correlation	-.782**	-.053	.487**	1	.412**
Alexithymia Score	Pearson Correlation	-.563**	.408**	.879**	.412**	1
****. Correlation is significant at the 0.01 level (2-tailed).**						

Table 4

Level of alexithymia in dog owners and non-dog owners

Do you own Dog ? * alex_categ Crosstabulation

Count

		alex_categ		
		moderate alex	little alex	Total
Do you own Dog?	yes	8	19	27
	no	15	13	28
Total		23	32	55

Table 4 represents the level of alexithymia in dog owners and non-dog owners. The results of the study observed that individuals who owned dogs tended to exhibit lower levels of alexithymia, while those who did not own dogs showed moderate levels of alexithymia. These findings collectively contribute valuable insights into the intricate interplay between alexithymia, emotional expression, and dog ownership.

Figure 3

Level of alexithymia in dog owners and non-dog owners

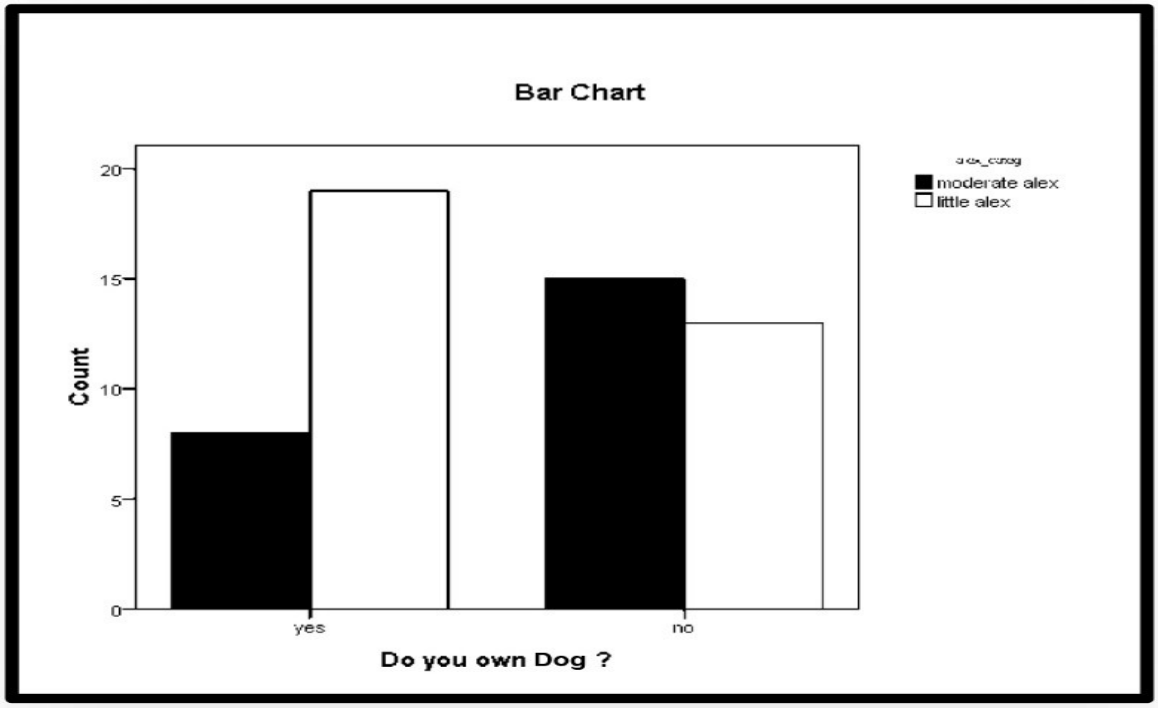

Table 3 shows a graphical representation of level of alexithymia in dog owners and non-dog owners.

It depicts that people who owned dogs show little alexithymia and those who didn't showed moderate level of alexithymia. This clearly means that dog owners find it easier to regulate and express their emotions as compared to non-dog owners.

Discussion

The findings of this study align closely with the existing body of research, reinforcing the established negative correlation between alexithymia and self-compassion (Bakker et al., 2019). However, what makes this study particularly noteworthy is its exploration of the relatively uncharted territory of alexithymia in the context of dog ownership. In doing so, it has unearthed a significant correlation between owning dogs and experiencing lower levels of alexithymia, characterized by difficulties in describing and identifying one's emotions, coupled with higher levels of self-compassion. This discovery underscores the potential therapeutic benefits of dog ownership for emotional well-being. The study is in line with various epidemiological and longitudinal studies which have revealed favourable connections between the presence of companion animals and human psychological well-being. For instance, a 10-month study found that new pet owners experienced a significant decrease in minor health issues in the first month after acquiring their pet. This effect endured for dog owners at a 10-month follow-up, and they also reported increased self-esteem over this period. (Serpell,1991) Additionally, companion animals have been observed to have a soothing and comforting influence on the well-being of individuals suffering from dementia and their caregiving families (Baun and McCabe ,2003).

A theory in line with this research is the polyvagal theory, developed by Stephen Porges in 1994, it explains how the nervous system responds to stress and emotions. Many at times individuals suffer from emotional dysregulation i.e. Difficulty managing emotions, according to this theory this is linked to an imbalance in the autonomic nervous system (ANS), especially in the vagus nerve. Polyvagal theory identifies three ANS states: dorsal vagal, sympathetic arousal, and ventral vagal. Each triggers distinct physiological responses, affecting emotional states. Emotional regulation becomes challenging when stuck in dorsal or sympathetic states. Each state triggers specific physiological responses, ranging from immobilization and dissociation in the dorsal vagal state to panic and overwhelm in the sympathetic arousal state, and a sense of connection and engagement in the ventral vagal state. Effective emotional regulation becomes challenging when individuals find themselves stuck in the dorsal or sympathetic states. To address emotional dysregulation and transition to a more regulated state of ventral vagal, engaging with a therapy dog or even one's own dog has proven beneficial. Such interactions have been shown to reduce anxiety and depression symptoms, lower physiological arousal like heart rate and blood pressure, and enhance social skills (Thelwell, ELR, 2019). Dogs, with their non-judgmental presence, promote feelings of acceptance and unconditional positive regard, proving especially valuable for individuals grappling with emotional dysregulation. Trained therapy dogs, in particular, offer a sense of safety and security, making them especially helpful for those with a history of trauma.

In the course of this research, while collecting data, a few participants revealed that they maintained a diary in which they addressed their thoughts to their pet, using the pseudonym "Lyka." They found it more comfortable to express their emotions to their dog, believing that it provided a secure and non-judgmental space for self-expression. Unlike sharing their feelings with humans, there was no concern that the dog would divulge the information or engage in gossip. Additionally, the dog offered emotional comfort when the participants was upset. The participants likened their dog to possessing all the essential qualities of a competent therapist, including empathy, unconditional positive regard, a non-judgmental atmosphere, and genuineness. They affectionately referred to their pet as a "pet therapist" and emphasized that it adhered to the ethical principles of counselling, particularly the principle of maintaining confidentiality. This in itself shows that interacting with companion animals or having dog at home helps individuals to regulate and be more in touch with their emotions. To recap, these results emphasize the critical role of addressing alexithymia in the context of emotional well-being. Cultivating self-compassion emerges as a valuable tool for individuals grappling with alexithymia, aiding them in gaining a better understanding of their emotions and improving their ability to manage them, ultimately contributing to their overall psychological health. Writing about how one's pet fulfils social needs in situations of social rejection can yield similar psychological benefits as thinking about a best friend, highlighting the role of pets as a direct source of social support (McConnell et al., 2011).

Moreover, the study's unique focus on the dog-owning population adds an intriguing dimension to the research. The correlation observed between dog ownership and reduced levels of alexithymia, along with elevated self-compassion, implies that dogs may function as invaluable sources of emotional support and outlets for self-expression. This novel insight into the therapeutic potential of dogs in aiding emotional regulation and self-awareness underscores the idea that companion animals, particularly dogs, can play a pivotal role in enhancing emotional awareness and regulation. Companion animals, especially dogs, excel in facilitating emotional awareness and regulation. They are adept at providing crucial emotional support, acting as a safe and non-judgmental environment for individuals to express their emotions freely. Therefore, offering alexithymia patients the opportunity to interact with such animals can prove to be a valuable coping mechanism, potentially leading to improvements in their emotional well-being and overall quality of life.

Limitations of the Research

The research faced a notable limitation due to its small sample size, prompting the need for future studies to broaden their horizons by incorporating a larger and more diverse group of participants. Furthermore, the research solely delved into the examination of two variables, namely, alexithymia and self-compassion. To enhance the depth of knowledge on this subject, forthcoming investigations should consider incorporating additional variables like empathy, stress, and anxiety. It's worth noting that certain confounding variables, like the presence of family members, might also influence alexithymia and self-compassion levels. This particular factor was overlooked in the present research and warrants consideration in future studies.

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