Introduction individuals? over the repeated study, allen et

Design, Fashion

IntroductionStress can be defined as “ a negativeemotional experience accompanied by various physiological, cognitive andbehavioural reactions” 1.

The experience can reach to any individual and generate unfavourable outcomes assuch as; sleeping problems, anxiety, social withdrawal, and many more2. Moreover, stress can be diagnosedvia many means; biometrically or biologically. Biometrically, stress can bemeasured throughout the use of questionnaires, interviews, state scales of the State – Trait Anxiety Inventory and many more. However, biological tests appear to be used more often due to their greaterreliability.

To biologically identity if an individual is stressed, the blood pressure, heart rate, fingertiptemperature and/or cortisol levels canbe measured. Over the years, researchers havedeveloped a multitudinous number of methods to cope with stress but few haveseen to be effective. Coping strategies as such as Mindfulness- Based StressReduction and Social support have been tested, nevertheless, a method whichlooks to be most debated seems to be the utilization of pets, establishing theresearch question; To what extent dopets positively reduce stress levels in individuals? Over the repeated study, Allen etal. (1991) supports that pets positively and significantly impact one’s stresslevels throughout the measuring of blood pressure and heart rate3. Additionally, Animal-Assisted Therapy (AAT) has been supported to be effectivein the reduction of stress among individuals by Barker and Dawson in 19984as well as Cole et al.

in 20075. Although the studiesexperimented via different means and collected results via different biologicalmeasurements, they all do support the positive impact of pets on the reductionof stress levels in individuals. Onthe other hand, Straatman et al. (1997), compared an experimentalgroup in the presence of a dog to a control group without a dog. Results showedno significant impact of pets on stress levels of individuals thus creating anenigma on the role of pets as a stress reduction method6. Due to the endless debating of theutilization of pets towards stress levels reduction, this essay will therefore, with a balanced view, discuss the research question by comparing and evaluatingstudies.

This research question is worthy of investigation as every year, thepet population increases, as do mental health and well-being positive andnegative cases. Studies on the positive biologicalimpact of pets in reducing stress It has been foryears debated whether pets impact human beings’ stress levels or not. Manystudies across the world have found that pets do in fact reduce stress levelsof individuals, nevertheless, to what extent do they impact humans has yet tobe discussed. In 1999, Allenet al. carried out a study with aim to examine the owning of pets and theirimpact as social help. The investigators more specifically researched if owninga pet could possibly diminish stress by utilizing a sample of 48 participantsfrom New York City stockbrokers (with an equivalent number of men and women)who experienced psychological stress. All participants were living alone andwere treated with drugs against hypertension.

For the experiment to be set, everyone of the participants needed to willingly acquire a pet. Half of theparticipants were randomly allocated with a cat or a dog while the other halfwas kept as a control. Blood pressure as well as heart rate were measured beforethe drug therapy started and half a year later. The researchers foundthat participants who claimed a pet over the investigation remainedsignificantly more stable than the control group.

It was therefore concluded bythe scientists that the stress symptoms such as blood pressure and heart rate decreaseswhen owning a loving pet7. A limitationthat Allen et al.' s study presented is that though the assumption can be madethat pets create a soothing environment; their study has a very restrictedgeneralization as the participants were particular to one employment and to a constrainedinterpersonal organization thus upholding a small window for generalization(N= 48). Nevertheless, the experimental validity is high due to the naturalenvironment in which the experiment was led thus allowing a higher validity ofresults. As per this study, pets do positively and to a high extent impactstress levels in individuals which strengthens the utilization of this method. The studycarried by Allen et al.

, 1999, has been replicated numerous times before andafter the research, yet, each time the sample was composed differently. Allenet al. in 1991 used a sample of adult women whereas Allen et al. in 2001 usedadults with hypertension and Allen et al. in 2002 used adults and marriedcouple. Still, all studies followed one aim; to test the effect of pets duringa stressor or stress task on individuals.

All three studies resulted with alower blood pressure and heart rate signifying lower stress levels8. The strengthening replication of the study across the years strongly supportsthat pets do have a positive and significant impact on stress reduction levelsof human beings. Not only did the studies were replicated which strengthen thereliability of the results but the use of different samples could be due to thefocus of improving the number or type of participants in order to increase thevalidity of the results and create a greater impact on the positive impact ofpets as stress reduction approach. Animal Assisted Therapy (AAT) is atype of therapy which involves animals as a type of treatment which aims to improve one's social, emotional, or cognitive functioning. Led by Barker and Dawson in 1998, AAT was used to reduce anxietylevels of hospitalized psychiatric patients. The crossover study consisted of230 patients psychiatrically hospitalized which was then divided into twogroups. One group underwent a single Animal-Assisted Therapy session and theother one a single regularly scheduled therapeutic recreation session.

Thepatients were asked to complete a state scale of the State -Trait AnxietyInventory (a self-report measure of anxiety) before and after theirparticipation. Results showed a significant reduction in anxiety in the Animal-AssistedTherapy group for patients with psychotic disorders, mood disorders and otherdisorders as well as in the therapeutic recreation group for patients with mooddisorders. The experimenters concluded that Animal-Assisted Therapy was linkedwith reduced state of anxiety levels for hospitalised patients with a largerange of psychiatric diagnoses and

therapeutic recreation sessions with reducedlevels of stress for patients with only mood disorders9. The study canfurther be generalized to a larger population due to its original large samplesize (N= 230). Moreover, although the participants were part of a controlledstudy which automatically increases the experimental validity, the patientswere hospitalized due to natural causes hence increasing the ecologicalvalidity of the study which consequently reinforces the reliability of theresults and supports that pets reduces one’s stress level to a great extent.

Insupport, Cole et al. (2007) used AAT to investigatewhether a 12-minute hospital visit with a therapy dog would improve certainconditions of 76 adult patients with advance heart failure. Through the randomized repeated-measuresexperimental design, the study divided thepatients into three groups; group 1 received a 12-minute visit from a volunteerwith a therapy dog, group 2; a 12-minute visit from a volunteer and group 3; usual care (control group). The data was measured at baseline, 8 minutes afterbaseline as well as 16 minutes after baseline and showed a significant decreasein systolic pulmonary artery pressure and pulmonary capillary wedge pressure aswell as an important decrease in state anxiety in group 1 compared to the othergroups10.

As the study was carriedout through a randomized repeated-measures experimental design, it can beevaluated that there is a high experimental. Additionally, the study can alsobe identified to have a high ecological validity due to natural environment thepatients regularly live in. Although the study can only be generalized to patientswith advance heart failure and not to a

wider population it can yet beconcluded that the results are reliable. In 2011, it wasconcluded by Beetz et al., that there is a strong connection between lowercortisol level and the physical contact with a dog thus supporting the researchquestion. The experiment was composed of 31 children aged 7 to 12 withdifficulties to create bonds/socialize with others. The children were placed indifferent social supports composed of either a dog, an adult or a toy dogduring a social stressor. As results from the experiment, lower cortisol levelswere found in the group of children assigned a dog11.

A year before, in 2010, Viau et al. found results akin to Beetz et al. (2011). Theexperimenters measured the cortisol levels of 42 children withautistic-spectrum disorder before and after the placement of a service dogamong their families as well as after its removal for a short period of time. As results, there was no change in the average diurnal cortisol levels howeverthe cortisol awakening response decreased significantly from 58% to 10% in themorning with the presence of the dog and increased back to 48% when the dog wasremoved which supports that pets positively and significantly reduce stresslevels in individuals12. A last studywhich found positive and significant results was led by Barker et al. in 2005.

The 35 adult psychiatric patients were divided into two groups; group 1 – 15min reading and group 2 – 15min with animal. Results showed lower salivary and serum cortisol level in the dog condition. This study therefore supports that pets positively impact stress levels ofindividuals to a high extent13. Overall, thereare numerous studies which support the owning of a

pet due to its positive andsignificant ways of helping in one’s stress levels diminishing. Regardless, until today, countless studies have supported that pets influence humans’ stresslevels to a high extent whether it is positive or negative. Studies on the ineffectual impact of pets in reducingstress Albeit that manystudies find that pets can positively reduce stress levels of individuals to ahigh extent, oppositely many studies support that pets to not influence thelevels of stress among human beings. As for example, a study carried out by Wright, Kritz-Silverstein, Morton, Wingard and Barrett-Connor (2007) found nodifferences in blood pressure or risk of hypertension between pet and non-petowners14.

The study was conducted on community-dwelling individuals from which 498 weremen and 681 were women, all aged 50 to 95 years old15. A mailed questionnaire with a clinic visit was to be done by the individuals inwhich their blood pressure was assessed. As results, pet owners had a lowersystolic blood pressure than non-pet owners, however when analysed, potentialconfounding variables as such as age were included and therefore no differencesbetween the pet owners and the non-pet owners was concluded thus supportingthat pets have no impact on stress levels in individuals16. Furthermore, Straatman et al.

(1997) carried out astudy to investigate whether the presence (group 1) or absence (group2/control) of an unfamiliar dog during a stressful speech task would impactstress factors. The outcome of the study showed no significant difference inanxiety, heart rate or blood pressure between the two groups17. As per their results, both studies support that pets impact individual’s

stresslevels to a low extent. Altogether, many studies support that pet have noimpact on one's stress levels and therefore pets impact individual's stresslevels to a low extent. However due to the neutral results of those studies, the replicating of each of them would be advantageous as to ensure thereliability of those results. Studies on the positive cognitiveand social impact of pets in reducing stress The cognitive level of analysis can be defined as ' how mentalprocesses such as perception, attention, language, memory and thinking in thebrain processes information18' and the socioculturallevel of analysis as ' the scientific study of how people's thoughts, feelingsand behaviors are influences by actual, implied or imagined presence of others19'. Various studies have concluded that pets do in fact improve certain functions of the twolevels of analysis which builds a major part of our personality. For example, in 2002, Hergovich et al.

carried out a study toinvestigate a dog's presence among a classroom for three months on fieldindependence, empathy towards animals, social competence and social-emotionalatmosphere. The sample of 46 first grades of two school classes was dividedinto an experimental and controlled group. The obtained results showed asignificant improvement in field independence and empathy with animals in theexperimental group; the children with the dog. Moreover, the companionship ofthe dog promoted the buildup of autonomous functioning as well as greaterseparation of self/non-self. Adding on, from the teachers' observations, thepupils from the experimental group seemed to have displayed a better socialintegration and there appeared to be fewer belligerent students compared to thecontrol group.

Overall, the researchers concluded that a dog can be a valuablefactor in the social and cognitive development of children20. Certain obtained resultsas such as ‘ less aggression’, ‘ more empathy’ and ‘ more social integration’could be from a reducing of stress in the individuals hence due to thecompanionship of a dog. Among our five human senses, Dr. Håkan Olausson; professor ofclinical neuroscience and leading touch researcher at Linköping University inSweden, explains that there are specific emotion-related fibers which areresponsible for the neurotransmission of the identification of gentle slow strokedand caresses activity21. Hence, these findingssupport the importance of touch thus the one of petting an animal. To justifythis statement, Shiloh et al.

(2003) explored the effect of petting an animalon anxiety. Through a repeated-measures within-session experiment, 58non-clinical participants were first exposed to a Tarantula, spider and wereasked to possibly pet it; acting a stressor. The participants were then dividedinto five groups; petting a rabbit (group 1), petting a turtle (group 2), pettinga toy rabbit (group 3), petting a toy turtle (group 4) or in a control group(group 5).

After carrying out a state-anxiety assessment at baseline, after thestressor and after the experimentation, findings revealed that petting ananimal does reduce anxiety levels. Furthermore, the diminishing of anxiety levelsdid not only apply to animal lovers but also to people with various attitudestowards animals. The researchers concluded that the discourse tends toconceivable emotional and cognitive establishments of the observed impacts andtheir suggestions22. As seen through Barker and Dawson’s(1998) and Cole et al.’s

(2007) studies, AAT seems to biologically positivelyreduce stress in individuals, but likewise, supported by Marr et al. (2000), AATcan also reduce stress of individuals as well as improve certain aspects oftheir sociocultural behavior.

The study investigated the effect of AAT onprosocial behaviors. The randomized sample consisted of sixty-nine male andfemale psychiatric inpatients which were consecutively divided into two groups. The experimental group was psychiatrically rehabilitated with AAT and thecontrol group simply psychiatrically rehabilitated. For four weeks, anindependent rater would everyday test the Social Behavior Scale on patients tomonitor any changes.

By week four, patients allocated in the experimental groupwere significantly more interactive with other patients, did better on measuresof pleasure and smiles, showed to be more sociable and helpful, were moreresponsible to their encircling as well as were more active. The obtainedresults convey that AAT plays an important role in improving the benefits ofconventional therapy and displays the importance of using a longitudinal, repeated measure design. Among the biological factors which have been reducedby the fourth week, stress could most likely be one significant factor whichhas allowed the individuals to develop improved behaviors. Previous studiesmight have failed to find significant effects due to their restricted intervaltimes for the measuring of outcomes23. Bandura (1977) suggestedthe social learning hypothesis as an expansion of existing learningspeculations. SLT depends on the presumption that individuals learn practices, demeanours, enthusiastic

responses and standards through direct encounters yetadditionally through watching different humans.

We take in results of conductfrom watching the end result for different people. Once such data is put awayin memory it fills in as a manual for future activities. Individuals willprobably copy conduct that has positive results. Social learning can beimmediate by means of directions or aberrant24. Nevertheless, can the theory only be generalized to learning from humans? A study led byGee et al. (2007) aimed to investigate the effect of the presence of a dog onmotivation to complete motor skills tasks. 14 language-impaired preschool maleand female children aged between 4 to 6 years old participated in the study inwhich they had to carry out 10 gross motor skills tasks (e. g.

high jump, longjump). The set of children were divided into two groups; the experimental groupwhich performed by the company of a dog and the control group which performedon their own. Per the dog assisting group, the pet effectuated the task priorto or at the same time as the children. As anticipated by the researchers, thechildren from the experimental group finished the task faster than the one’s inthe control group. It was then concluded by the investigators that thecompanionship of a dog served as an effective motivator for the infants whoperformed quicker and without disturbing the precision of all but one task.

Additionally, the researchers suggested the use of therapy dogs among speech and languagedevelopment programs for children in preschool25. The

retrievedresults of the studies could be due to many factors that the dog triggered inthe children when about to perform the task. For example; as the children werefocused on the dog which was a motivator, the stress of the children loweredand allowed them to perform better. Their concentration was possibly not basedon the examiner nor the pressure to obtain good scores but on the dog itselfthus reducing the stress levels in the body. Moreover, the dog led the studentsto perform faster and better results than the control group suggesting that thepet is a motivator in learning. Hence, this study supports the theory ofBandura (1977) and the research question as the pet led to lower stress levelsdriving to and an increase in learning time (cognitive process). Conclusion There arecountless variables (e.

g. modern or old-fashion culture, western or easternculture, religion, lifestyle, etc.) that can affect results of studies and morespecifically, to what extent do pets impact the stress levels of individuals. One important variable which must be taken into consideration is whether theculture in which the study was led is individualistic or collectivist. Anexample of a cultural clash would be, according to the Communicaid Group LTD(2010)26, in the US and Europe, dogs are loved and considered as a fantastic pet to havein a familial home. Nevertheless, in other cultures as such as those whopractice Islam, dogs are seen to be filthy or dangerous thus affecting thestress levels of individuals due to their perception of pets, yet, this cannotbe generalized to the whole Islamic population due to mind-set differenceswhich will impact whether one conforms to the beliefs of Islam or not.

From a personalled survey, as per pet owners as well as from personal experience; pets seem tomake individuals happier and less stressed due to the companionship, caring andlove they bring us. They for most, allow them to socialize more and buildrelationships with others. Hence, this supports the positive biological, cognitive and social impact of pets on human beings. Across this essay, studies have been analysed and contradicted. As for example, the replication ofAllen et al. (1991) has strongly supported the effect of pets on the reductionof stress levels in individuals but was later on contradicted by Straatman etal.

(1997) which found neutral results. Furthermore, it was also supported byHergovich et al. (2002), Shiloh et al.

(2003), Marr et al. (2000) and Gee etal. (2007) that pets play an important role in the creation and building up ofcognitive and social processes in humans. In conclusion, it cannot be directly concluded whether pets impact stress levels ofindividuals to a high or low extent due to the countless studies opposing eachother.

Nevertheless, per most studies and the support of personal experience aswell as a personal led survey, pets seem majorly to have a positive and significantimpact on the reduction of stress levels in individuals thus possibly concludingthat pets do positively reduce stress levels of individuals. Presuming thatpets definitely positively reduce stress levels of individuals to a highextent, this raises a multitude of subsidiary questions as such as, could pets work as a placebo effect? To what extent can culture impact whether

apet can reduce one’s stress levels? Towhat extent can gender impact whethera pet can reduce one’s stress levels? Do pets understand when an individual has high levels of stress? Thus, to answer those questions, further research, analysis and discussion would be needed to be carried out.