Attitude towards and Interest in Dog-Assisted Interventions of Students in Higher Education

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Abstract

The mental health of students is a critical issue facing institutions of higher education, as a majority of college and university students report suffering from stress and anxiety. Studies have shown that interacting with animals can enhance the mental health. Consequently, animal-assisted interventions can be used to cover the concerns of students. This study evaluated German university students´ attitude towards dogs, animal-assisted interventions and their interest in its use at their own university. Additionally, possible predictors were investigated. Another aim was the validation of the questionnaire. 560 university students answered a questionnaire consisting of the Coleman Dog Attitude Scale (C-DAS), a modification of the Attitude Towards Animal-Assisted Therapy Scale and a translated and modified version of the Cuestionario de Actitudes ante las Intervenciones Asistidas por Perros (CAINTAP). Results showed a slightly positive attitude towards dogs, animal-assisted interventions and interest in its use at the university. Furthermore, students´course of studies and sex have proven to be predictors. Thus, especially female students of educational science would welcome an implementation of animal-assisted interventions at the university. The questionnaire showed high quality with a Cronbach's alpha α = .936.

Keywords: Animal-Assisted Intervention; Higher Education; Attitude; Interest

1. Introduction

Going to college or university is a new chapter in any person´s life. There are a lot of things changing and new challenges appearing. Students can experience elevated stress levels and anxiety due to new teaching methods, academic pressure, external and internal expectations, time and financial management, new social environment and geographic locations (e.g. Miczo, Miczo & Johnson, 2006; Misra & McKean, 2000). As a consequence, a lot of students suffer from mental health problems. According to an American College Health Association survey of more than 63,000 students in spring 2017, 87 percent of students reported feeling overwhelmed by their workload, 84 percent felt exhausted, 61 percent felt overwhelming anxiety and about 45 percent rated their overall level of stress as "more than average stress". An increased stress level in students in higher education was found in Germany, too. According to a study of the health insurance company AOK in 2016, the stress experience of students is still more distinctive than the one of the average of employees (Herbst et al., 2016), which is in line with the findings of Eskin et al. (2016), who reported a higher psychological distress in university students than in the general population. The stress level increases upon entry to university and does not decrease throughout their time there (Bewick et al., 2010).

To keep up with the increasing need for counseling service and to address the concerns of college and university students, finding new alternative ways to help has become paramount. One service that is increasingly used to meet the needs of students are animal-assisted interventions. An investigation by Haggerty and Mueller (2017) found that 62 percent of the surveyed universities in the United States already have animal-assisted programs and the majority of them use dogs. In animal-assisted programs commonly a group of students gets the chance to interact with therapy dogs and their handlers in drop-in-sessions. Previous research has revealed that those interventions can, amongst others, reduce students' stress (e.g. Binfet, 2017; Ward-Griffin et al., 2018), anxiety (e.g. Grajfoner et al., 2017; Jarolmen & Patel, 2018), homesickness and can increase their satisfaction with life and connectedness to campus (Binfet & Passmore, 2016). Nonetheless, animal-assisted interventions have not been used at German universities thus far. As a consequence, the aim of this study was to examine German students´attitude towards dogs, animal-assisted interventions and interest in its use at their own university. To gain more information, possible predictors were investigated additionally. It was hypothesized that:

1) German students have a positive attitude towards dogs, animal-assisted interventions and its use at their home university.
2) Sex and course of studies influence students´ attitude towards dogs, animal-assisted interventions and its use at their home university.
3) Age has no influence on students´ attitude towards dogs, animal-assisted interventions and its use at their home university.

Furthermore, the created questionnaire should be validated.

2. Attachment Theory

The relationship between animals and humans, and their effect on them, can be explained by the application of the attachment theory. The attachment theory (Bowlby, 1973, 1980, 1982) is an empirically supported framework that explains how close relationships influence emotion regulation, mental health, and psychological growth. It can be applied to relationships that meet four criteria (e.g., Hazan & Shaver, 1987; Hazan & Zeifman, 1994): proximity maintenance, safe haven, secure base and separation distress. As pets often meet these four prerequisites for an attachment figure/object, the human–pet bond can be viewed as an attachment relationship (Zilcha-Mano, Mikulincer & Shaver, 2011). Additionally, there may be secondary or context-specific attachment figures. Unlike primary attachment relationships, they might be more time-limited and situation-dependent. For example, therapists in therapeutic settings (Mallinckrodt, Gantt & Coble, 1995) can be actual or potential sources of comfort and support. According to Triebenbacher (1998), behaviors such as following, smiling toward, holding, and touching are evident in the reciprocal relationship between child and attachment figure, which can be observed in interactions between humans and animals, too. In summary, animals in visitation programs might also serve as attachment figures/objects and offer the benefits derived from them.

3. Methods

3.1. Participants

560 students of the University of Regensburg in Germany ($N_f = 408$, $N_m = 144$, $N_o = 8$), with a mean age of 20.90 ($SD = 2.742$, range 16–40) participated. The course of studies varied between teaching profession for primary schools "Grundschule" ($N = 160$), teaching profession for elementary school "Mittelschule" ($N = 72$), teaching profession for secondary school "Realschule" ($N = 41$), teaching profession for grammar school "Gymnasium" ($N = 129$), educational science "EWS" ($N = 105$), and single others like media studies.

3.2. Questionnaire

A questionnaire was created based on the Coleman Dog Attitude Scale (C-DAS), the Attitude Towards Animal-Assisted Therapy Scale and a translated version of the Cuestionario de Actitudes ante las Intervenciones Asistidas por Perros (CAINTAP). Furthermore, demographic information was gathered at the beginning of the questionnaire.

Demographic Information. Demographic information was asked to gain knowledge of students´sex, age, course of studies and semester.

Coleman Dog Attitude Scale (C-DAS). The Coleman Dog Attitude Scale assesses attitudes towards dogs. It is a 24-item self-report measure and has shown to be reliable and valid with a Cronbach´s alpha ranging from 0.98 to 0.99. (Coleman, Green, Garthe, Worthington, Barker & Ingram, 2016).

Attitude Towards Animal-Assisted Therapy Scale. Consisting of 19-items, the Attitude Towards Animal-Assisted Therapy Scale measures the attitude towards animal-assisted therapy. The questionnaire showed a high internal consistency with a Cronbach´s alpha α = 0.85 (Hightower, 2010)

Cuestionario de Actitudes ante las Intervenciones Asistidas por Perros (CAINTAP). The Cuestionario de Actitudes ante las Intervenciones Asistidas por Perros (CAINTAP) consists of 22-items, measuring the attitude towards dog-assisted interventions - perceived benefits and fears. It is separated in two factors, positive and negative attitude, both with Cronbach´s alphas α > 0,87 (López-Cepero Borrego, Perea-Mediavilla, Tejada Roldán & Sarasola-Sánchez-Serrano, 2015)

Due to its use at the university, some questions had to be modified for this context. The resulting questionnaire consisted of 24-items measuring students´attitude towards dogs and 20-items measuring their attitude towards animal-assisted interventions on a 7-point scale with 1 = strongly disagree and 7 = strongly agree, and closing 22-items measuring their attitude towards dog-assisted interventions at their home university on a 5-point scale with 1 = strongly disagree and 5 = strongly agree.

3.3. Procedure

The questionnaire was handed out to students at the beginning of different lectures. They were told, that this study was part of a thesis and participating was absolutely voluntary and anonymous. After about 15 minutes, the completed questionnaires were collected again.

4. Results

The program SPSS was used to analyze the data. A total of 548 valid questionnaires were obtained.

4.1. Validation of the Questionnaire

Principal component analysis (PCA) showed - analogical to the factor analyses carried out by the creators of the three origin questionnaires - a one-factor solution for the modified C-DAS (MC-DAS) and Attitude Towards Animal-Assisted Therapy Scale (MATAATS),

while the modified CAINTAP can be separated into two factors. These were called "benefits" and "fears". Cronbach´s alpha showed for MC-DAS, MATAATS and the factor "benefits" high results with $\alpha > .90$, and a Cronbach´s alpha $\alpha = .871$ for the factor "fears".

4.2. Attitude of German Students

German students showed a more positive attitude towards dogs ($M = 4.72$, $SD = 1.65$) and animal-assisted interventions ($M = 4.71$, $SD = .98$). Furthermore, they rather see benefits (e.g. dogs would distract people from their sorrows; dog-assisted pedagogy would help participants to relax; dog-assisted pedagogy would make the university a happier place) in its use at their university ($M = 3.46$, $SD = .67$) than fears ($M = 2.92$, $SD = .76$) (e.g. dogs would bark at the university; it is possible that the dogs worsen certain respiratory problems; dog allergies would be a problem).

4.3. Influences on Student´s Attitude

Results showed that students' sex had a significant, but small effect on their attitude towards dogs ($\eta^2 = .011$), animal-assisted interventions ($\eta^2 = .015$) and the benefits they see in its use at their home university ($\eta^2 = .019$). Women proved to be a little more in favour of it than men. Only their fears were not affected by their sex ($\eta^2 = .004$). In addition, there were differences in students' attitude towards dogs ($F_{(4,502)} = 2.535$, $p < 0.05$) and the benefits they see in the use of dog-assisted interventions at their home university ($F_{(4,497)} = 2.878$, $p < 0.05$) due to their course of studies (figure 1). Their attitude towards animal-assisted interventions and their fears, however, were not affected by it. Furthermore, their age did not have a significant influence on students' attitudes and interest ($p > .05$).
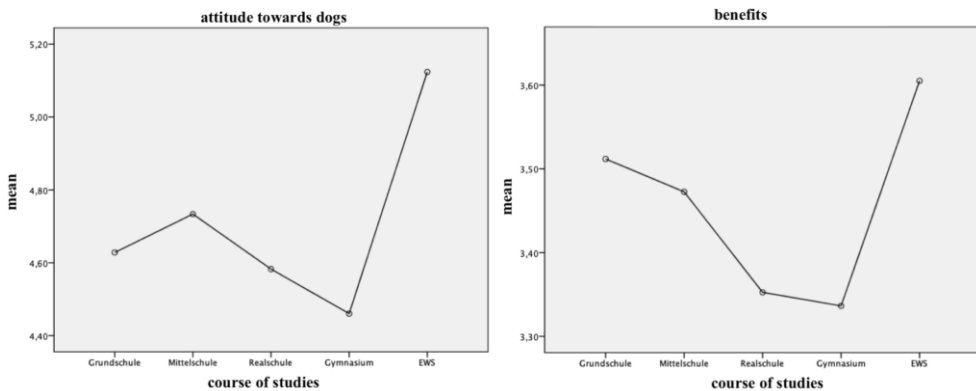

Figure 1. Differences in students' attitude due to their course of studies.

5. Discussion

The aim of this study was to assess German students' attitude to and interest in dog-assisted interventions. The holistic effect animals have on human beings in a diverse assortment of settings has been documented in a wide range of research (e.g. Halm, 2008; Kaminski, Pellino & Wish, 2002) and is one reason for its current use in pedagogical, psychological and therapeutic interventions. Due to the increasing need for counseling service of college and university students and to address their concerns, animal-assisted interventions could be used. As dogs can provide social and emotional support, dog-assisted interventions hold potential to strengthen students' mental health.

The findings of this study show that German students have a slightly positive attitude towards dogs, animal-assisted interventions and interest in its use at the university. They see more benefits in its use than fears. Consequently, the implementation of dog-assisted interventions could be profitable for German universities. Nonetheless, students' fears about its use need to be noticed and preventive measures have to be taken. In addition, students' course of studies and sex have proven to be predictors. Female students and students of educational science showed to have a more positive attitude towards and interest in its use. Furthermore, the questionnaire showed high quality with a Cronbach's alpha α = .936. This result supports the use of this questionnaire to gain information about students' attitude to and interest in dog-assisted interventions at their home university.

6. Limitations and Future Directions

Despite the best of intentions, this study was not without limitations. The majority of the participants were female, the courses of studies were not equally distributed and limited to courses in the liberal arts. Future research should investigate a wider range of courses of studies and make sure that the sample is equally distributed. Furthermore, it should be tested, if the number of items can be reduced, as the survey still is a little time-consuming.

7. Conclusion

As institutions of higher education need to look for innovative ways to support the social and emotional wellbeing of their students, dog-assisted interventions are gaining popularity. Nonetheless, German universities have not yet implemented them. This might be due to the uncertainty if students are actually interested in them. The created questionnaire could provide information about students' attitude towards and interest in dog-assisted interventions at their home university. It consists of 66 items and has proven to be applicable to measure students' attitude towards and interest in dog-assisted interventions.

In addition, the results of this study have shown that German students have a slightly positive attitude towards and interest in dog-assisted interventions at their home university.

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