In this study the main aim was to examine the effect of a farm animal-assisted intervention on mental health in people with clinical depression. In total twenty-nine persons participated (6 men and 23 women), with a mean age of 37.8 years. All participants had a Beck Depression Inventory score on 14 or above at time of recruitment, indicating a clinical depression being present. After recruitment were the participants randomized into two groups; an intervention group with sixteen participants and a wait-list control group with thirteen participants (Pedersen et al. 2012b). All participants filled in questionnaires measuring levels of depression (BDI-IA), state anxiety (STAI-SS), and self-efficacy (GSE) at recruitment, start and end of intervention and at three months follow-up. Eleven farms were recruited to the study, all with dairy cattle as their main production. The intervention was carried out twice a week for twelve weeks, where the participants conducted ordinary work tasks in the cowshed at the farm, together with the farmer. Eight of the participants did also contribute to a qualitative study with individual thematic interviews (Pedersen et al. 2012a). In the qualitative study all the participants had finished the intervention, and the main objective was to obtain the participants’ own experiences of the intervention. The interview questions addressed relevant themes connected to the participants’ experiences with farm animal-assisted intervention, like their relationship to the farmer, the different work tasks, and the animal contact. Another aim in the study was to examine the associations between time spent doing various work tasks during the intervention and change in mental health (Pedersen et al. 2011). This was done via video-recording of 14 participants during their work in the cowshed, once early and once late in the intervention period. Figure 1 illustrates time spent doing various work tasks, animal contact and dialogue with the farmer early and late in the intervention in percent of total time used in the cowshed for the video recorded participants.

Figure 1. Time spent doing various work tasks, animal contact and dialogue with the farmer early and late in the intervention in percent of total time in the cowshed (mean and SE) (Pedersen 2011)
Figure 2 and 3 show development in scores of depression, state anxiety and generalized self-efficacy in the intervention and control group at the different measurement points from recruitment to follow-up.

![Graph](image1)

**Figure 2. Development in scores of depression (BDI-IA) in the intervention and control group at different measurement points from recruitment to follow-up (mean and SE) (Pedersen 2011)**

![Graph](image2)

**Figure 3. Development in scores of state anxiety (STAI-SS) and generalized self-efficacy (GSE) in the intervention and control groups at different measurement points from recruitment to follow-up (mean and SE) (Pedersen 2011)**

**Results**

In the randomized controlled trial a statistically significant decline in depression was seen in the intervention group but not in the control group between recruitment and the end of the intervention. During the same period of time change in self-efficacy was positive and statistically significant in the intervention group, but not in the control group (Pedersen et al. 2012b). An analysis of change in mental health measures between the two groups revealed no statistically significant differences (Pedersen et al. 2012b). In the video study change in depression, anxiety and self-efficacy were correlated with time spent in various behavioral categories (Pedersen et al. 2011). Time spent with milking procedures and moving animals
were favorably correlated with change in mental health. An unfavorably correlation was seen between change in mental health and mucking, grooming, sole animal contact and inactivity (Pedersen et al. 2011).

In the qualitative study the transcripts were analyzed, and resulted in four main themes: ‘Ordinary life’, ‘Being sick’, ‘Flexibility’, and ‘Coping’ (Pedersen et al. 2012a). Within ‘Ordinary life’ the possibility to experience ordinary work was emphasized as important. In the main theme ‘Being Sick’ the farmers’ attitude towards the participants’ situation was essential and it was also important that the intervention served as a distraction from the participants’ illness. The intervention’s ‘Flexibility’ was experienced as vital and made it possible for the participants to adjust the work in relation to their condition. A majority of the participants experienced ‘Coping’ as a central aspect at the farm. The participants felt they were given tasks they could manage, and this gave a positive feeling of accomplishment (Pedersen et al. 2012a).

**Conclusion**

Changes in mental health measures in the intervention group were not significantly different from those in the control group. However; favourable correlations was seen between work tasks that could be described as complex and challenging and decline in depression and state-anxiety. This progress in working skills could be important, possibly connected to experience of coping. In the interviews the participants emphasized coping experiences as a central element in the intervention. A farm animal-assisted intervention could be beneficial for subgroups of clients and act as a useful supplement within mental health care.

**References**


*Pedersen, I., Nordaunet, T., Martinsen, E.W., Berget, B. and Braastad, B.O. 2011. Farm Animal-Assisted Intervention: Relationship between Work and Contact with Farm Animals and Change in Depression, Anxiety, and Self-Efficacy among Persons with Clinical Depression. Issues in Mental Health Nursing, 32, (8), 493-500*