

# Palliative Inpatients' Experiences with Equine Therapy: A Qualitatively Driven Mixed-Method Exploratory Study

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## Abstract

*With advances in modern medicine, Canadians are living longer with chronic illnesses. While many live at home, those in inpatient units may require comfort measures to complement treatment programs. Anecdotal evidence established that equine (horse) therapy can be beneficial, but there has been limited research on using horse therapy within Canada's inpatient palliative care population. The study aimed to understand palliative inpatients' experiences with equine therapy. Of eight adult palliative care unit inpatients recruited by nursing staff, six (aged 58 – 82) completed the study. A qualitatively driven mixed-methods research design was used to collect qualitative data via individual interviews with participants and quantitative data through inpatient records and the revised Edmonton Symptom Assessment System (ESASr). The quantitative data, analyzed using a non-parametric sign test, guided the interview questions. Then, narrative analysis of the interview data allowed detailed descriptions and exploration of the participants' real-life experiences. The study's results identified equine therapy as an effective intervention that allowed participants to "live in the moment." Narrative threads of quality of life, fatigue, distraction, reminiscence, and identification with the therapy horse were examined. This research project outlays an innovative approach for conducting horse therapy within an institutional setting. It begins to scientifically address the knowledge gap on the meaning of horse therapy to the adult palliative care inpatient population.*

**Keywords:** *Animal-assisted therapy, Equine therapy, Mixed-methods, Narratives, Palliative inpatients*

## 1. Introduction

Patients who receive palliative care deal with multiple stressors daily, such as pain, loneliness, fear, and depression. They may worry not only about themselves but also about family and friends [1]. Areas of need identified as unmet by these patients are psychosocial, such as having someone with whom they can sit down, discuss their treatment plan, or socialize [1][2]. In response to these needs, complementary and alternative treatments are evolving [3][4]. More than three-quarters of Canadians (79%) have used at least one complementary or alternative therapy sometime in their lives [5]. Equine therapy is an example of such therapy. A caring and natural nursing intervention, the use of horses to help

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with physical, emotional, and psychological challenges is gaining momentum, and positive results have been reported in the literature for clinicians choosing equine-assisted therapy for veterans [6], multiple sclerosis patients [7], and abuse survivors [8]. Horses are sensitive to subtle nonverbal cues [9], which can lead to the therapy horse interacting with the patient and the patient acting to elicit a response from the horse. This small measure of control within the interaction can give an outlet to the patient amid an otherwise uncontrolled symptomatic illness [1]. There is limited research concerning the horse's role in hospice or palliative care [10]. Hence, the study aimed to discover and understand palliative inpatients' experiences with equine therapy.

## 2. Literature Review

A literature review was performed to appraise available research and evidence applicable to this study's intervention aim: providing equine therapy to an adult palliative inpatient. CINAHL with Full Text, PubMed, Cochrane Library, and ProQuest Nursing & Allied Health Source databases were used with the following keywords: Animal-Assisted Activity (AAA), Animal-Assisted Therapy (AAT), animal therapy, equine therapy, horse therapy, hospice, and palliative. Retrieved articles were manually reviewed for additional references, and open-access articles identified through Google Scholar were also utilized. Articles that fit the keyword search but not this review were excluded due to having animals (a) as study test subjects rather than as the intervention (e.g., the effects of a drug on an animal), (b) indirectly in the intervention (e.g., using animals to create/model something for use in humans, such as a stent), or (c) as the palliative population (e.g., using treatments to ease a symptom experienced by a palliative animal). Articles that focused solely on the effects of pet ownership, such as the effects of owning and caring for a canine on the owner's health, were also excluded. Also, articles with an exclusive pediatric palliative population focus were excluded because access to pediatric palliative patients would be nonexistent for this study. Due to the difficulty in verifying the accuracy of sources outside the library databases, such sources were not included as part of the literature review; however, they helped design the study.

This search strategy yielded 59 peer-reviewed articles published in English between 2000 and 2022 in academic journals. Research as far back as 2000 was included when it was the only evidence available to support or refute findings. Most of the articles were dedicated to a component of palliative care (e.g., living with breast cancer). Small animals, in addition to horses, were used in palliative care settings. The need for more academic evidence about animal therapy was stated in every article.

### 2.1. Horse therapy and the palliative population

Twenty-eight articles included horse therapy as a potential complementary therapy in palliative care. Of these, 14 reported research studies. The populations studied comprised palliative and chronic condition needs of female breast cancer [11][12], adults with chronic conditions [7][13][14][15][16], women with eating disorders [17][18], veterans [6][19][20][21], and psychiatric inpatients [22]. Many of the studies used quantitative methods [7][11][13][15][16][17][19][21][22] with three entailing randomized control trials [6][11][22]. Two [12][18] were qualitative inquiries.; three [6][14][20] were mixed methods research with both quantitative and qualitative data.

The type of horse therapy involved riding therapy [7][11][12][15][16][18][20] and groundwork activities such as grooming, leading the horse, and finger-painting symbols on

the horse [13][21]. When the riding was combined with groundwork activities, the results were improved sociability, improved muscle strength, and increased confidence [7][11][12][18][20]. In most studies, the research protocols required the participant to go to the horse farm rather than have the horse come to the participant [24]. This would pose a barrier to the current study, as traveling to a farm was not a viable option with the inpatient palliative population. The need for further research, such as randomized control trials in animal-assisted therapy, was identified; however, the difficulty of determining a causal reaction to horse therapy and attributing it to one lone intervention was noted [25].

## **2.2. Small animal therapy and the palliative population**

The literature that focused primarily on small animal therapy used dogs [26]-[41], rabbits [37][39], cats [37], fish [42], birds [43], ferrets, and guinea pigs [34]. The small animal therapy articles focused on cancer populations [2][34][44][45][46], nearing death or end-of-life populations [48][49][50], the palliative care population [28][29][36][37][47][51], and palliative care and hospice as an area of examination or use for animal therapy [52][53][54][55][56][57][58]. A meta-analysis of 165 studies agreed that animal-assisted activity had a positive effect on depression. Still, it noted a wide variation in how the studies were developed and that few of the studies met the inclusion criteria for acceptable research [59].

## **2.3. Synthesis of the reviewed literature**

In general, psychosocial and emotional benefits of Animal-Assisted Therapy (AAT) for clients included socialization [22][23][24][25][30][41][43][60], stress reduction [28][29][38][55], improved mood [2][17][24][34][36][37], increased self-awareness [14][16][24], and an increased feeling of control [14][16][24]. Physical benefits included decreased blood pressure [24][61], decreased pain [2][14][16][28][52][53][56], decreased fatigue [7][34][61], and increased appetite [2]. Breast cancer survivors participating in horse therapy exhibited increased oxygen consumption, leg and shoulder strength, and quality of life [11]. With the end-of-life process, animals were found to bring comfort and peace to clients [30][48][50], even when clients were only able to visit with animals virtually due to the COVID-19 pandemic [54].

In other ways, AAT with horses contributed to positive client outcomes. Both breast cancer survivors [12] and women struggling with eating disorders [18] reported appreciation of the focus on the persons, the present moment, and the horses – not cancer or eating disorder diagnosis. After therapy, the participants from each study identified connections between animal therapy and other aspects of their lives, such as the importance of living in the present and being mindful. Horse therapy gave participants a sense of accomplishment and pride [12][18].

The response to AAT was overwhelmingly positive. Therapy animals were found to pick up nonverbal cues from human participants and provide companionship, comfort, and a sense of peace that helped improve the quality of life of the participants [2][23][24][28][29][37][53][55][61]. By responding to clients' behaviors as participants, these small and large animals were thought to act as a 'bridge' between the client and the therapist or therapeutic group [24]. Clients could change how they solicited the response from the therapy animal if they wanted a different response [12]. Understanding how to solicit animal responses made clients more self-aware [12][23][24].

AAT was essential for clients who wanted human companionship but needed to learn how to obtain it or those who did not wish for human companionship but were willing to see animals. For example, a man who experienced depression and refused company but surprisingly allowed a therapy dog into his room became more willing to accept human company and requested his privacy sign to be taken down from his door after having a positive interaction with the dog that had jumped up on the bed for companionship [28]. AAT was further found to reverse the roles of the client from being the nurtured to the nurturer [29]. When a client spent time with a therapy dog and nurtured the dog through presence and attention, the client reported a feeling of control within an otherwise chaotic illness.

Potential risks for harm with AAT included hygiene and allergy concerns [29][51]. The ability of the facility to meet safety and infection control policies [53] needed to be assessed. Due to the unpredictable disposition of animals, each specific animal used for therapy needed to be evaluated for an appropriate temperament for the work involved [62][63]. Training courses and certification were required for some species, such as canines, before becoming a therapy animal [63]. Horse therapy involves training both the horse and the handlers to ensure that potentially dangerous situations have a positive resolution and that the sessions are facilitated for the best optimal outcomes of the visit [9][62]. Client safety was necessarily prioritized during therapy [12], with a prepared plan in place to stop therapy and obtain help if needed. In the literature reviewed, no cases of infection were traced back to AAT [2][3][24][55][61].

#### **2.4. Summary of literature review**

Of the studies reviewed, the evidence supporting AAT was positive or indifferent. The benefits and positive outcomes of AAT were recognized. Potential risks and insight on how to prevent or mitigate these risks were identified. Most articles identified the need for research in palliative care to complement and provide scientific evidence to confirm or deny the anecdotal evidence. Each study varied regarding the AAT intervention, how it was provided to the clients, and how it was measured. None of the horse studies reviewed involved an inpatient population receiving palliative care as the study focus. This stimulated the research question that became the focus of this study: What are the experiences of palliative inpatients with horse therapy?

### **3. Research methodology**

To achieve the research purpose of understanding palliative inpatients' experiences with equine therapy, a qualitative narrative approach allowed flexibility for the participants to share what was important to them about their intrinsic experiences rather than trying to prove or disprove a hypothesis [64]. The narrative provides a participant with a practical means for developing a coherent account or story about their experience to integrate the experience into meaningful learning while locating the participant as the storyteller in the story and foreshadowing their perspectives about the future [65]. With this approach, participant narratives conveyed their wants, needs, intentions, and unexpected events within the confines of their setting [65], in this case, the palliative care patient center. Ideally, the study would have a robust sample size and ample data to provide insight into the palliative inpatient experience. Large sample sizes increase generalizability to similar populations, particularly with quantitative data [66][67]. However, it was known during the study design that there was a potential for a small sample size due to the limited availability of the population studied. This prompted the selection of the mixed-methods design of quant → QUAL, described by

Morse and Niehaus [68] as a sequential design with the supplemental quantitative component collected first, followed by the dominant qualitative element. A mixed-method design provided robust data even with smaller sample sizes [68]. The study aimed to understand the patient experience with horse therapy, so the emphasis was placed on the qualitative component that yielded most of the data to answer the research question.

### **3.1. Participants**

Eight participants met the inclusion criteria within an inpatient Provincial Palliative Care Center (PPCC) facility in Atlantic Canada. Eligibility criteria were being a PPCC inpatient, having the competency to provide fully informed consent, being English-speaking, being able to participate in the therapy, and having manageable symptoms to participate. Following distributing information letters to potential participants, the first author discussed the study's aim and expectations and obtained written consent from interested individuals before starting the study. Of the eight participants, six were able to complete the study. All spoke English fluently; two participants spoke English as a second language. The average completed education was Grade 12 (50% of participants). Occupations were teacher, homemaker, tourist operator, banker, skilled laborer, and farmer. All participants were Caucasian (European descent) except for one (Acadian). Of the six participants, four were female. Two were male. The average age was 68.5 years, ranging from 58 to 82 years. Of the six participants, five experienced a form of cancer as a primary diagnosis; the remaining participant was diagnosed with end-stage respiratory illness.

### **3.2. The horse therapy intervention**

The horse selected for the intervention was Billy, a 16-year-old grey Norwegian Fjord registered with the Canadian Fjord Horse Association. Billy's history included visiting the palliative care population in the community and at the farm. He had provided visits to the Provincial Palliative Care Centre (PPCC) before the study was designed, so it was already known that the facility's inpatient rooms were well set up with expansive, low windows that allowed a clear view of Billy and enough space for both Billy and his handlers. The windows opened for sound to pass but not touch. If an inpatient did not want to participate, a designated person would follow Billy's progress and completely obscure Billy's presence when he passed that room's window by temporarily closing the window and drawing the shades.

The intervention consisted of four alternating horse therapy visits per participant over two weeks [Table 1]. The first (week one) and third (week two) visits involved viewing a video of the therapy horse, Billy. The video consisted of clips from the horse's previous visits to the PPCC (confidentiality was ensured) and clips of the horse in his home environment. The second (week one) and fourth (week two) visits entailed the therapy horse (Billy) coming to the PPCC. Billy went to the room window for all participants, and participants had the option of a hands-on visit with Billy at the front door of the PPCC. Two of the six participants could see Billy at the door and visit him hands-on. The length of the visits depended on the individual participant and ranged from two to fifteen minutes in duration.

### **3.4. Data collection**

Data gathering occurred only after the intervention period. It consisted of collecting participants' patient chart information (medications and previously documented revised

Edmonton Symptom Assessment System (ESASr) data, completing another ESASr, and interviewing. The ESASr, an internationally used standardized tool to assess multiple symptoms of the palliative population [69], was already regularly used at the facility studied. First, the medical chart was accessed to obtain the participant's medications and the latest ESASr completed by staff (up to 24 hours before the fourth visit). The participant completed another ESASr shortly after the therapy visit. The remaining demographic and qualitative data were obtained through interviews conducted by the same researcher. Depending on an individual participant's health status, data were collected via longer sessions (approximately 15-70 minutes) or several short sessions (approximately 5-15 minutes). The interview questions were open-ended; the researcher used prompting to understand a response further. Two of the eight participants experienced death before finishing horse therapy, decreasing the participant number to six.

Table 1. Protocol for researching AAT with horses and palliative care inpatients

<b>Video Visit Protocol (First and third visits)</b>
<p>PI to introduce themselves and the visit's purpose, ensure informed consent is obtained, and answer any questions.</p> <p>Ensure the participant is in a comfortable position with any hearing aids and glasses positioned.</p> <p>Being present as a researcher, not a service provider, watch the video with the participant (approximately ten minutes). If needed, gently redirect the conversation to the horse in the video.</p> <p>Always maintain safety. Alert the palliative care center staff ASAP if the participant requires assistance.</p> <p>Discontinue visits early if medical or environmental intervention is needed.</p>
<b>Therapy Horse Visit Protocol (Second and fourth visits)</b>
<p>Ensure the therapy horse is up to date on vaccinations. Ensure informed consent was obtained.</p> <p>PI will introduce themselves and explain the purpose of the visit, answer any questions that may come up regarding the study, and remind the participant of their right to withdraw from the study at any time with no consequence.</p> <p>Ascertain the presence of at least three people: one with the participant and two handlers with the horse. Monitor that horse handlers are appropriately dressed for being outside with proper footwear. Instruct horse handlers to immediately alert PI if intervention is needed for the therapy horse.</p> <p>While at the participant's windows, one horse handler focuses on the horse while the other one focuses on external distractions for the horse. No hands-on therapy at windows is permitted due to safety concerns (e.g., risk of jamming fingers).</p> <p>When conducting hands-on therapy, the two horse handlers focus on the horse, and the PI focuses on the participant.</p> <p>Participants are to be appropriately dressed based on the weather.</p> <p>Ensure the area is decluttered. Ensure staff is aware of where their patients as participants are to help safely ambulate them.</p> <p>Have hand sanitizer and allow participants to pat the horse individually.</p> <p>Focus on the participant. Discontinue the visit with the horse and notify palliative care center staff ASAP if an intervention is needed.</p>
<b>Additional Protocol for Data Collection (Fourth visit only)</b>
<p>Obtain pre-therapy symptoms score (ESASr) and a list of medications from the medical chart.</p> <p>PI will conduct the post-therapy ESASr and the interview (ASAP after the fourth visit; however, depending on the participant's energy, this could be up to 72 hours after the visit).</p> <p>Sync interviews with the participant's energy levels. Some interviews may require only a few visits, whereas others require multiple, short visits.</p> <p>Encourage participants to elaborate on their responses using open-ended terminology (e.g., "tell me more").</p>

### 3.5. Data analysis

Quantitative data included demographic data and ESASr responses. The routine symptoms on the ESASr scale (pain, tiredness, drowsiness, nausea, appetite, shortness of breath, depression, anxiety, and well-being) could be similarly experienced by the palliative

population regardless of diagnosis [69]. The ESASr was ideal for this study as the inpatients were already familiar with it, reducing the participant data collection burden. The ESASr data were collected daily at the PPCC by experienced palliative care clinicians, with the participants providing the data.

Each raw ESASr score was rated on a scale of zero to ten; a zero rating indicated the participant was not experiencing the symptom, and a ten rating indicated the worst possible symptom experience. Bar charts from Excel of each symptom gave a visual representation of the raw ESASr scoring and showed that none of the symptoms had a zero rating for all participants. Conversely, none of the participants had a zero rating for all symptoms. The ESASr symptom scores of each participant were compared pre- and post-horse therapy for the fourth visit so that each participant acted as their comparison. Sign tests [66] were completed for each of the ESASr symptoms. The dependent variable for each test was the symptom; the independent variable was time. The pre-horse therapy ESASr data collection occurred before the fourth visit by staff. The post-horse therapy collection occurred after the fourth visit by the first author (an experienced palliative nurse). Before the sign test, the raw ESASr data were transformed into zero, negative, or positive results. Zero indicated no difference between the pre-and post-ESASr collections and, therefore, was not analyzed in the sign tests. The positive and negative variables focused on whether improvement or decline was noted; thus, the subjective score of the ESASr was not a factor in the calculation.

Qualitative data was obtained via a narrative approach that focused on the meanings people drew from their experiences [70]. The researcher facilitated the participants to share their stories in detail from their perspectives. The questions were open-ended, and the participant often guided the interview. Each participant was asked the same questions devised for the study [Table 2]. However, the depth of responses, as well as additional situational questions, differed. Data collection varied between participants. Interviews ranged from one or two long sessions to several short sessions, depending on the participant's health status. Each interview lasted from 5 to 70 minutes and was transcribed.

Table 2. Interview Questions

Tell me about participating in this study. What is your experience with Billy, the therapy horse? What stood out for you about horse therapy? Did you do hands-on therapy? Yes/No What was this like for you?
How did the visits influence any of your symptoms? -e.g., pain, tiredness, drowsiness, nausea, appetite, shortness of breath, depression, anxiety, well-being, and other
I would like to know if you had other factors affecting your symptoms besides the horse therapy. -e.g., medications, visitors, recent events
What does the quality of life mean to you? Did the horse therapy influence your quality of life?
Having met Billy, did the visit with Billy have a similar effect as being around the other animals in your life? A different effect? No effect?
How did you feel when you watched the video of Billy?
How did you feel when you visited with Billy?
Is there anything that you would change about the horse therapy provided in this study?

To supplement any limited data, the existing literature was carefully examined to support (or potentially refute) emerging study findings. Freeman [67] noted that with narrative analysis, “data are everywhere” (pp. 63). It was critical to introduce literature into the findings only after the collective core story was developed from participant data to reduce the

risk of bias [67][71]. The incorporation of literature as data rounded out the study findings. Throughout the process of sampling the literature, it was necessary to periodically examine that each conclusion was complemented and not derived from only one source (i.e., the study findings or the literature) and to be aware of the literature's author, methodology, research question, and its pertinence to this study's findings [67].

The quantitative and qualitative responses were analyzed separately and then integrated. Integration revealed several threads from participants' core stories that formed a collective core narrative. The ESASr results complemented the understanding of the severity of the symptoms experienced. The findings were limited in analysis due to the small sample size and finite opportunities to re-interview the participants before the end of life. Despite this, the data collected powerfully represented the participants' experiences.

### **3.6. Ethics**

Before data collection, approval was obtained from the University of New Brunswick Research Ethics Board and the Prince Edward Island Research Ethics Board. Approval was also required and received from the University of Prince Edward Island Animal Care Committee to carry out the research in agreement with guidelines from the Canadian Council of Animal Care.

## **4. Results**

Every participant had previous experiences with animals; 100% were exposed to small animals and 50% to large agricultural animals. All participants indicated that their last exposure to animals positively influenced their lives. Some participants referred to their animals as family members. According to the quantitative data, none of the ESASr symptom sign tests were statistically significant. For example, the p-value of 0.25 for the sign test on appetite indicated no significant change between the pre-and post- ESASr collection times. The quantitative results were integrated with qualitative threads to fashion a collective core story of the meaning of horse therapy experiences to palliative inpatients.

### **4.1. Living in the moment**

The participants knew their conditions were terminal and that they would never again return to their homes. Living in the moment enabled them to connect with their intrinsic value as individuals affected by life-threatening chronic illnesses. Their decline in health from diagnosis to admission to the PPCC ranged from quick (months) to prolonged (years); however, once admitted to the PPCC, their health declined rapidly from quick (days) to prolonged (months). With such a fast decline, there was less time for them to get affairs in order and to understand their illness trajectory. Participants did not have the time or energy to focus on things they had no control over. They struggled to manage the concurrent competing symptoms such as tiredness, pain, shortness of breath, poor appetite, and diminished well-being. Time spent with loved ones, settling estate affairs, and accepting the inevitable end of life were deemed critical tasks. There was no choice but to take life one day at a time, as the future could no longer be anticipated.

Things that were once taken for granted were now considered "gifts from God," such as seeing another sunrise, getting out of bed in the morning, and being relatively symptom-free. At one time, participants had based their self-worth on occupation, relationships with family, hobbies, and volunteering activities. Their priorities changed so they could maintain value



and self-worth. For example, a participant noted how difficult it was to lose his independence with daily tasks such as mobility, toileting, or dressing. Before he was admitted, it could have taken him up to an hour and a half to get dressed on his own in the morning. On PPCC admission, he changed his perception of himself and then permitted himself to let staff help with dressing so that his energy could be better spent on things such as visiting with family. For all participants, emphasis was placed on the family as they realized their children and grandchildren would continue to live on without their direct influence. Participants were questioned if they had done enough to prepare their loved ones for what was to come after their death.

Living in the moment meant that participants focused on maintaining maximal independence despite their concurrent symptoms. It was difficult to depend on others (e.g., family or staff members). Tasks that were accomplished independently in the past could no longer be done alone. One participant who refused to accept his loss of independence was frustrated by his limitations. To him, calling for a nurse every time he wanted to move from the desk to the window was unacceptable. He requested a small portable commode with a cushioned cover that he used as a chair to wheel around the room. The PPCC policy was that the brakes should be applied when in use. Because he could not safely release the brakes, it took him a lot of effort to negotiate with the staff to use the commode chair more independently.

Participating in horse therapy did not give back independence or change the upcoming end of life for the participants. Yet, it provided interactions that helped retain and share personal values with others. For example, the two participants who did hands-on visits with Billy (the therapy horse) enjoyed him lowering his head and gently nudging them to encourage more patting from them. These participants perceived a sense of empowerment by controlling the type of affection they provided to Billy. So, Billy's visits influenced living in the moment by giving a sense of anticipation, excitement, brightness, novelty, joy, and control. This encouraged participants to experience the moment without focusing on their current health status and symptoms. Expressing both surprise and delight, participants and family members considered the horse visits as "something above and beyond" what they expected at a palliative care unit at the opportunity.

## **4.2. Living in the moment threads**

Underpinning the collective core narrative of living in the moment were quality of life (QOL), fatigue, distraction, reminiscence, and identification with Billy, the therapy horse. These threads became clear after analyzing the data transcripts multiple times and reassembling the plots, sub-plots, and threads across individual stories into a collective core story.

### **4.2.1. Quality of life**

To participants, having a good Quality Of Life (QOL) meant being symptom-free, maintaining independence, enjoying socializing with family and friends), and appreciating the things that come with each day, such as waking up in the morning. However, ESASr responses indicated various symptoms and severities that influenced the sense of QOL when combined with participants' perceptions of their value and self-worth. The uncertainty of each day and wondering if "my sickness is staying the way it is for the time being" was voiced. All six participants experienced tiredness and drowsiness. Five experienced shortness of breath and a diminished sense of well-being. Four experienced pain and a decreased sense of

appetite. Three participants experienced anxiety, nausea, and depression two. One participant experienced a range of all nine symptoms on the ESASr at the same time, which impacted her QOL. Medications helped to manage symptoms; for example, the three participants who experienced nausea during data collection indicated that anti-emetic medications decreased nausea.

The participants defined QOL in terms of multidimensional aspects. Emotional aspects were expressed as feelings of depression, anxiety, and well-being on the ESASr. Health care and preparatory aspects were managed by the staff "treat[ing] you very well in here," and staff "do[ing] everything for me," including assistance with the organization of estate and funeral affairs. Personal autonomy was significant to QOL. All participants desired to retain independence for as long as they could. Physical aspects were identified as a desire to be "relatively pain-free." One participant, in describing living longer with "a new set of lungs," was referring to obtaining relief from his distressing symptom of shortness of breath (of which eight out of ten on the ESASr shortness of breath scale was "normal" for him. Social and spiritual QOL were expressed as "spend[ing] time with family and friends" and the feel[ing] that each new day is a "gift from God."

Aware they may not wake up the next day, participants focused on taking each day "as you can," actively trying to enjoy the day as it was. Only one participant described QOL in terms of quantity, expressing a desire to "live longer." A participant who had a strong connection with Alcoholics Anonymous said, "We only have today because tomorrow never comes." Billy's visits helped to "brighten" and bring "a little joy" to the day, providing stimulation and a brief respite from the symptoms the participants were experiencing.

#### **4.2.2. Fatigue**

While living to see another day was an accomplishment, surviving with an end-stage illness at the PPCC was tiring. To conserve energy, participants often used silence and chose their words carefully. For example, one participant sharply declared, "Next question!" instead of spending additional energy elaborating on his present answer. Fatigue was evident, as was tiredness and drowsiness, which rated in a range of three to eight out of ten on the ESASr.

When participants became over-tired, they anticipated the following day would be "bad." A bad day included increased symptoms such as shortness of breath and so much tiredness that they could "sleep for a day or two." They would stay in bed with little energy. Billy's visits gave participants a sense of calmness, relaxation, and energy. The participants who went outside to pet Billy did not say that Billy added to their fatigue; one participant declared that Billy gave her a brief "burst of energy." Those participants who stayed in their rooms stated that Billy did not contribute to their tiredness; instead, they attributed their tiredness to their diseases and medications.

#### **4.2.3. Opportunity for distraction**

Billy's visit provided a break from the everyday routine and concerns that the participants lived with. After all, "who would expect to have a horse visit them?" The distraction created a positive experience through social interactions with Billy, the horse handlers, the staff, family, and friends. One participant "could almost feel" Billy through the window glass and did not have prior experience with horses. Another participant could "tell from Billy's face" how much he was "really really (sic) enjoying" the handlers brushing him. The brushing of Billy's neck, either by the participants or the handlers, evoked smiles from everyone

involved. The distraction of Billy coming to the unit elicited spontaneous waving and stimulated participants to converse with the handlers about Billy's history and care.

The most meaningful aspect of Billy's visits to participants was sharing the experience with family and friends. A sense of anticipation was created earlier in the day when staff declared, "Billy's coming today!" Participants arranged for family and friends to be present when Billy was there. Grandchildren's faces lit up when they saw Billy. Family and friends took pictures to preserve the moment. A photo of Billy giving a participant a "kiss" at her window on her 63<sup>rd</sup> birthday was shared with every family member on and off the province.

#### **4.2.3. Positive reminiscence**

Seeing Billy brought pleasant memories of caring for previous animals that participants considered "like family." These unique past participant-animal relationships included dogs, cats, rabbits, foxes, and livestock. The memories of caring for these animals were positive feelings of love and satisfaction. As a young girl, one participant saw a foal being born and has loved horses ever since. Seeing Billy took her back to when she was growing up on a farm, and she fondly relived a memory of a horse taking an apple from her hand. For another participant, a pet dog named Baby was a true companion who knew when to snuggle up "right close" to comfort her when upset. This gave her a sense of value, self-worth, and love because Baby demonstrated care and concern for her well-being. Nurturing an orphaned fox provided one participant with a sense of satisfaction.

#### **4.2.4. Identification with the therapy horse Billy**

Participants living with chronic illnesses and receiving palliative care services wanted to be seen first as individuals rather than as their illnesses. "When I'm around people, they see all the scars, whereas Billy just sees me... [Billy] doesn't let my condition affect how he sees me. It makes me feel fine." Billy making a "face" or quickening his step to reach participants faster was perceived by participants as Billy recognizing and acknowledging them.

Some participants also identified with Billy by using him to express or transfer their feelings. For example, one participant used Billy to express how he viewed himself – "What's that idiot doing on [the] another side of the window" with an oxygen tube "stuck up his nose." This participant was initially limited in his mobility; then, as his lungs deteriorated, he became dependent on oxygen. Loss of self-worth, identity, and independence was evident in his description of how Billy would see him. A second participant routinely asked how Billy was doing. He was concerned about whether Billy had a sore hip or back. Although initially, this participant denied having similar pain, he later acknowledged that he was asking about symptoms he experienced.

#### **4.2.5. Summary of results**

The resulting core narrative, "living in the moment," emerged from the individual experiences of six participants living with chronic terminal illnesses in a palliative care unit. Living in the moment enabled the participants to experience every available opportunity they deemed appropriate mindfully. As the participants' circumstances changed, so did their priorities in life and their perceptions of themselves. Living in the moment allowed them to re-prioritize and change what was and was not important.

The core narrative of living in the moment with its threads of QOL, fatigue, distraction, reminiscence, and identification with Billy contributed unique insights into the participants'

experiences. The study's results clearly showed that the participants wanted to be seen, heard, and recognized as individuals with intrinsic worth and value. It was difficult for them to be viewed by others as their illness, symptom, or environment. Time was essential and in short supply due to fatigue and competing symptoms. Billy's visits helped distract participants from fatigue and other symptoms while providing socialization opportunities. The visits brought a sense of excitement and provided meaningful experiences for the participants and their loved ones.

## 5. Discussion

The collective core narrative of living in the moment reflects contemporary findings on mindfulness by Beng et al. [72], Dobkin [73], and Romotzky et al. [74]. Mindfulness is a specific way of non-judgmental thinking that entails being purposely present in the moment. It is an established form of meditation long practiced by Buddhists [75] and used with various populations such as those seeking stress reduction, hospice and palliative care clients, and health care professionals [76][77][78][79]. Mindfulness interrupts everyday worries, stresses, and negative thoughts accompanying health concerns [72]. It may be easy for people to experience each day thinking of the past or the future, unaware of what is happening in the present [79]. Mindfulness can lead people to reappraise their lives to make the best of their situation so they can continue living in the moment [79]. Romotzky et al. [74] found that using strategies like mindfulness allowed palliative care clients to reappraise their lives and ultimately change previous defining behaviors (e.g., being now willing to express their feelings and accept help).

In addition to mindfulness, the collective narrative of living in the moment enabled opportunities for self-expression and satisfaction amid the duress of terminal illnesses. Narrative threads about QOL, fatigue, distraction, reminiscence, and identification with the therapy horse Billy conveyed unique insights that contribute to understanding the meaning of horse therapy experiences to inpatients receiving palliative care. The loss of value and sense of self commonly expressed within palliative units is stressful for everyone involved, particularly for those already experiencing debilitating symptoms [80].

According to a participant in a study by Romotzky et al. [74], "palliative care is not about prolonging life but about maintaining and enhancing the quality of life" (p. 4). Lane, Ramadurai, and Simonetti [81] described improved quality of life by addressing the palliative care patient's physical, psychosocial, and spiritual needs. Also, McCaffrey, Bradley, Ratcliffe, and Currow [80] further broke QOL down into emotional, health care, preparatory, personal autonomy, physical, social, spiritual, and cognitive aspects. This study's findings on QOL for palliative care inpatients found similar emotional, health care, preparatory, personal autonomy, physical, social, and spiritual components. This study's participants did not highlight the remaining element of cognition, identified by McCaffrey et al. [80], as none experienced impaired cognition.

In this study, AAT helped distract from the omnipresent fatigue and other symptoms while providing socialization opportunities. Distraction as a therapy is well documented in the literature and has been used in pediatric [82][83], psychiatry [84][85], and palliative [86][87] populations. Wolgast and Lundh [88] explored the positive (acceptance) and negative (avoidance) effects of distraction. Positive distraction was supported by this study's findings that, to some extent, most participants accepted their current situations. The socialization that came about from the distraction was welcomed. Evidence of negative distraction was shown with one participant who had not entirely accepted where he was with his diagnosis. As soon

as the distraction was over, his focus would negatively return to his symptoms or limited independence.

Reminiscing is a proven therapy for stimulating feelings of purpose, meaning, and belonging [89][90][91]. Dobson [90] described a Canadian hospital program that utilized tactile stimulation kits for reminiscing. For example, a bank teller fingering coins may bring forth fond memories of a different time, allowing the individual to be seen as the person before the development of illness. Scott and Kaylor [91] identified how important it was for healthcare professionals to see beyond their clients' presentation in the clinical setting to create rapport and better understand their clients. The participants in this study either reminisced about horses or other animals within their lives, such as current or past pets, livestock, and, in one participant's case, wildlife. The love, connection, and satisfaction of having a pet are supported by Fine and Beck [62], Tottle [92], and While [93]. Negative memories can be damaging to the individual who is reminiscing, but with proper preparation, those memories can still be therapeutic [89]. For example, reminiscing during animal therapy could lead to distressing memories of being afraid of horses or being attacked by a dog. That did not occur in this study, as only positive memories were expressed.

The finding of increased social interactions supported Geisler's [29] conclusion that companion animals facilitated "communication, grief, and life review" (p. 287) for those approaching their end of life. The excitement, anticipation, joy, and enhanced companionship with loved ones generated by the horse therapy intervention were also reported by Ockleford and Berryman [55]. Also, the finding that Billy's visits stimulated interest and provided a positive diversion beyond the actual visit was consistent with how Lander and Graham-Pole [49] described the purring of a cat as "love medicine" that soothed and transcended the grief and distress of a dying man and his wife.

The study's finding that palliative care inpatients wanted to be recognized as individuals first was congruent with Haylock and Cantril's [12] finding that participants appreciated the focus on them as individuals rather than as people with cancer. Loss of identity is a documented phenomenon individually [94] or as a family unit [95]. Gillies and Johnston [96] noted that an individual's sense of identity could be affected in multiple ways, such as cancer presenting physical challenges (e.g., surgery) and dementia presenting cognitive difficulties (e.g., the memory processes of the individual being affected). An illness could make an individual forget their past self/role, demonstrating a need for that individual to redefine themselves [94]. In the absence of illness, even aging could bring losses that affect an individual's identity and role [96]. An animal such as Billy, the therapy horse that accepted individuals as they were then without their active involvement or interpretation, presents a decisive moment.

This study provided a protocol for initiating horse therapy in the inpatient palliative setting. Considering practice location, population, and appropriate intervention strategies, the horse therapy visits took place over two weeks for each patient, with two types of visits per week (i.e., Billy visiting and viewing a video of Billy). Billy's visits entailed interacting with each participant at their window for a few minutes until they were ready to stop (range of two to ten minutes, depending on the participant). Hands-on therapy was then offered at the front door of the Provincial Palliative Care Centre (PPCC) for willing participants. The participants clearly stated that the visits with Billy were preferred over watching videos.

## 6. Conclusion

The literature reviewed identified various potential benefits of animal-assisted therapy; however, there was limited scientific evidence concerning the inpatient palliative population. This study provided a unique opportunity to explore the palliative inpatient experiences with equine therapy while not being a strenuous intervention for the participant. The offered equine therapy, tailored to adult palliative inpatients, was successful in helping the participants meet their need to live in the moment while being terminally ill. Participants directed the study's findings by sharing their experiences of how essential and difficult it was for them to live in the moment. Having the therapy horse visit them through their windows without needing to leave their beds allowed participants to enjoy the experience while still conserving their energy. Against the backdrop of pain, fatigue, the uncertainty of illness demands, and institutional care, moments of interacting with the therapy horse created niches of varying levels of expression, control, and wonder. The findings provided empirical evidence in core stories. They revised Edmonton Symptom Assessment System scores that conveyed horse therapy as a positive energy-conserving intervention in the patient palliative care center setting.

Although there may be other alternative or current therapies that could complement and help participants to continue living in the moment, this study's results provided insight into the meaning of equine therapy where current research is lacking for the inpatient palliative population. The protocol developed as this study's intervention could be adapted for other horse therapy interventions, such as with family members and palliative care staff.

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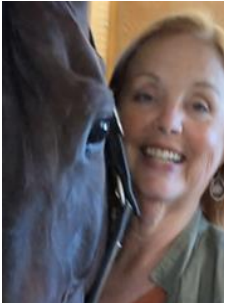
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