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The effect of emotive case construction on knowledge acquisition and ethical sense-making

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Abstract

The use of ill-structured case examples as an instructional strategy to teach ethical lessons is well-supported in the literature, however, case examples often lack an emotional or affective component. Given the importance of crafting cases for learners, more research is needed to better understand how to construct and present case examples to enhance learning outcomes, specifically related to the influence of emotive content. This study was conducted to assess the effect of emotive content on knowledge acquisition and ethical sense-making. The study employed a posttest-only control group design. Emotive content was defined as information related to the character's emotional reactions or feelings, background, beliefs, physical appearance, and/or goal focus of the character. Participants were 71 graduate-level Master of Social Work students at a university in the coastal U.S. Results contribute to the growing body of literature regarding the effect of emotion in processing and manipulating complex information. The results suggest that the addition of emotive content to a case example may distract or overwhelm learners. Case examples should be constructed using clear and simple information.

Keywords Case example · Emotive content · Ethical dilemma · Ethical sense-making · Ill-structured problem · Knowledge acquisition · Social work

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Introduction

We make countless decisions every day. Some decisions are routine, such as whether I should have cereal or a muffin for breakfast, while others are more complex, such as which safety features are most important on the new car I wish to buy. The complexity of these decisions can vary based on multiple factors, including the number of issues involved as well as the predictability and interactions between the variables (Jonassen, 2011). Professional social workers make critical decisions that have a significant impact on individuals and families. On any given day, social workers may have to decide whether sufficient evidence of abuse exists such that a child should be removed from the home or whether a teenager who posts a comment on Facebook about harming himself rises to the level of hospitalization. Often, there is not an obvious right or wrong answer to these dilemmas and competing demands may further complicate an acceptable course of action. Doing the right thing, amid competing demands and difficult circumstances, is at the core of ethical practice.

Helping professionals often encounter complex, real-world problems that require choosing between several possible options without knowing, with any certainty, the outcome of those choices. These types of problems are considered ill-structured, in that no single, correct solution can be arrived at; rather, several possible solutions must be evaluated based on the context of their application (Jonassen, 1997). According to Jonassen (1997), the most complicated and ill-structured type of problem is a dilemma. Ethical dilemmas, such as those encountered by helping professionals including nurses, social workers, and counselors, are further complicated by underlying values and beliefs, emotional responses, legal issues, ethical codes, and organizational constraints that may influence the complex situation. Therefore, students and practitioners in the helping disciplines must learn how to make sense of these complicated situations.

To resolve ethical dilemmas, individuals must make sense of numerous and distinct pieces of information to form a mental model that guides cognition throughout the complex problem situation (Kligyte et al., 2008). This sense-making process provides a framework for gathering information and applying standards to evaluate the information while constructing and evaluating alternative courses of action (Mumford et al., 2008). In short, sense-making strategies form the foundation for interpreting complex and often ambiguous ethical dilemmas (Kligyte et al., 2008).

One popular instructional strategy used to stimulate discussion about ethical dilemmas and emphasize ethical lessons is the use of case examples. Case examples (e.g., vignettes, scenarios) are narratives or stories that embed learning in authentic situations (Jonassen, 2011). Case examples are commonly used in the classroom and in continuing education as activities to reinforce ethical thinking (Dodd & Jansson, 2004; McCormick et al., 2014; Pawlukewicz & Ondrus, 2013; Ringel & Mishna, 2007). Case examples provide learners with opportunities to identify problems, consider possible solutions, and evaluate the consequences of potential solutions. Researchers have found that using case examples as an instructional strategy is at least equivalent to and can be more effective than didactic instruction alone (Jonassen, 2011).

It is vital that students and practitioners alike identify the presence of ethical issues and successfully resolve these complex problems throughout their professional careers. Ethics education and ongoing ethical practice are so fundamental to the helping professions, including social work, counseling, and nursing, that each has adopted a code of ethics with specific principles and standards to guide ethical practice along with educational requirements for continued practice.

Only recently have social work scholars begun conducting research related to ethics and ethical decision-making (Reamer, 2014) and the convergence of empirical research related to ethical dilemmas and instructional strategies in the social work literature is extremely limited. Although there is empirical support for the use of case examples as an instructional strategy to teach ill-structured problem solving and ethics-related concepts (Antes et al., 2012), there is a paucity of research related to the effects that variations in case content and case presentation may have on learning outcomes. Therefore, the goal of this study is to explore the effect of emotive content, within an ethical dilemma case example, on knowledge acquisition and ethical sense-making.

Empirical research in the social work literature focuses primarily on intervention strategies for working with individuals, families, and communities, rather than instructional strategies. Moreover, social work scholars have only recently begun conducting research related to ethics and ethical decision-making (Reamer, 2014). Thus, the convergence of empirical research related to ethical dilemmas and instructional strategies in the social work literature is extremely limited. Although there is empirical support for the use of case examples as an instructional strategy to teach ill-structured problem solving and ethics-related concepts (Antes et al., 2009), there is a paucity of research related to the effects that variations in case content and case presentation may have on learning outcomes.

Specifically, we provide an overview of emotive content in case examples and ethical sense-making. We acknowledge the use of case-based instruction in social work exploration. We then explore ethics instruction in social work education and opportunities for integrating emotive content to support social work students' abilities to engage in ethical sense-making.

Literature review

Emotive content and case examples

Case examples provide learners with opportunities to identify problems, consider possible solutions, and evaluate the consequences of potential solutions. Researchers have found that using case examples as an instructional strategy is at least equivalent to and can be more effective than didactic instruction alone (Jonassen, 2011) and should be used as a pedagogical tool for ethics-related instruction (Fisher & Kuther, 1997). Case examples require learners to engage in higher-order thinking to solve problems, rather than merely reciting factual knowledge (Jonassen, 2011). To solve complex problems, multiple cognitive operations are needed and working memory is tasked with processing numerous components of the problem simultaneously

(Jonassen, 2000). The cognitive components of problem-solving require learners to access domain knowledge and structural knowledge, utilize metacognitive and justification skills to 7 evaluate problem-solving strategies and solutions as well as the ability to persist and exert effort on a task that may be difficult (Jonassen, 1997). Effective resolution of these complex problems requires an ability to analyze and understand the ethical situation from numerous perspectives, including emotional and social perspectives (Kligyte et al., 2008). Making sense of the myriad sources of information to form the mental model that guides the cognitive process requires individuals to first appraise the situation as having ethical implications (Kligyte et al., 2008). Then, alternative actions and consequences can be evaluated before a course of action is selected.

Emotions can influence how information is processed and affect the amount of mental effort used in working memory. The effect of emotion on working memory has been investigated, with conflicting results (Lindström & Bohlin, 2011). Negative emotion has been found to impede problem-solving and cognitive processing (Shackman et al., 2006), although a more recent study found that negative emotion may boost visual working memory quality (Xie & Zhang, 2016). Similarly, a study exploring working memory capacity found that individuals with higher working memory capacity were better able to infer the emotional state of another person and adjust their response to changing circumstances (Lynn et al., 2016). Emotional arousal has also been shown to promote cognitive energy (Watson & Tellegen, 1985). A recent study explored the social regulation of emotion on long-term memory, finding that supportive relationships, such as handholding, can reduce negative affect and conserve cognitive resources (Flores & Berenbaum, 2016). Moreover, studies have shown that negative and positive words have a processing advantage over neutral words (Kousta et al., 2009).

As these studies demonstrate, emotion affects cognition, yet ethical dilemma case examples regularly lack this important emotional component. Case examples that do not include specific details related to the character's emotional reactions, feelings, beliefs, or relationships are less like the problems encountered in real life. Real-world problems contain these elements and are the primary means by which students analyze and apply knowledge (Marra et al., 2014; Tawfik & Kolodner, 2016). The use of case examples, to pose complex yet real-life ethical dilemmas that learners must negotiate and resolve, provide educators with an engaging alternative to didactic instruction in the classroom (Kolodner et al., 2012). For case examples to be interesting and reflective of real-world problems, case narratives must include sufficient details to understand the case. The inclusion of too many seductive details, that is content that is interesting but not relevant to the instructional objectives, may detract from learning (Abercrombie, 2013). Likewise, case examples that contain too many complex causes may overwhelm novice learners (Johnson et al., 2012). Emotional content in case examples enhances attention and interest, which can result in better recall of case details (Thiel et al., 2013). Conversely, specific emotions, such as anger, have been found to inhibit ethical decision-making, while fear facilitated ethical decisions (Kligyte et al., 2013).

Complex, realistic ethical problems place cognitive demands on learners and have the potential to influence how decisions are made (Kligyte et al., 2013).

Therefore, careful attention to case example construction and the accompanying narrative must be considered (Ertmer & Koehler, 2015; Tawfik & Kolodner, 2016). For example, presenting alternative outcome scenarios reduced knowledge acquisition and resulted in less effective decision-making, likely due to the increased cognitive load imposed by the alternative scenarios (Peacock et al., 2013). The addition of contextual and individual factors, such as a clear description of the social context in a case example, has been shown to improve ethical decision-making (Bagdasarov et al., 2013), while case examples that focus on the goals of the characters resulted in weak learning outcomes (Harkrider et al., 2013). Presenting cases incrementally, rather than holistically, was cognitively draining for learners and resulted in negative reactions to the learning activity (MacDougall et al., 2014). To promote learning, case examples should be realistic and emotionally evocative, using clear and simple causal information (Johnson et al., 2012).

Ethical sense-making

Evaluating and resolving ethical dilemmas requires learners to engage in a complex cognitive process to make sense of the novel or ambiguous situation (Caughron et al., 2011). This sense-making process aids the learner in developing an understanding of the problem while forming a mental model in which new or missing information can be integrated and interpreted. Ethical sense-making focuses on the individual making sense of the information being presented to them whereas ethical decision-making involves the process to use that information and make a decision. Several common strategies used during the sense-making process include thinking about the problem circumstances, anticipating possible outcomes and decision alternatives, and considering the impact of decisions on others (Johnson et al., 2013). Prior experiences may also be used as a basis for understanding the problem and anticipating outcomes (Mumford et al., 2008). The mental model, once formed, aids learners in navigating the complexities of the dilemma and forming a solution that incorporates ethical reasoning (Brock et al., 2008). The efficacy of the sense-making process and strategies to address complex ethical dilemmas have been found to increase the identification of key causes of the problem, the anticipation of outcomes, and consideration of ethical implications (Johnson et al., 2012; Stenmark et al., 2010, 2011).

Use of case examples in social work education

In social work education, case examples are a common activity used to reinforce ethical thinking and behavior. For example, Ringel and Mishna (2007) used case examples focused on giving and receiving gifts, relationships with clients during treatment, and contact with clients after terminating services to review ethical guidelines in a safe, classroom environment. Rather than conducting empirical research on the effectiveness of these case examples, the authors provided practice principles as guidelines for fostering discussion in the classroom and creating a safe space for these difficult conversations to occur. Fossen et al. (2014) used case examples from

various settings such as a domestic violence shelter, child protective services investigation, and a community mental health center to illustrate the steps in the ethical decision-making process. The use of case examples was not specifically evaluated in this study, however, the authors reported that one group of students achieved a passing score (80%) on the application of an ethics model to a case example. The authors noted that students needed additional field experience to complete the complex practice case. In another study, human service students (n = 166) participated in a survey that presented 25 ethical scenarios in which participants indicated agreement or disagreement with the worker's decision (Pawlukewicz & Ondrus, 2013). The brief scenarios included common ethical issues such as confidentiality, dual relationships, and duty to warn. Findings were reported as percentages of agreement or disagreement with the human service worker's decision.

Continuing education providers in medical social work used case examples to illustrate ethical concepts, such as patient autonomy and capacity, and to stimulate discussion among training participants (McCormick et al., 2014). In this study, researchers combined short lectures with the case example format. The case examples were used to illustrate ethical issues and stimulate discussion among the participants. The authors noted that this approach was familiar to participants but was not an effective strategy because the cases did not address broader ethical principles. Dodd and Jansson (2004) used case examples from a hospital setting as a teaching tool to highlight the need for ensuring that patient and client needs were represented in ethical deliberations. The authors proposed that the organizational context of the case example should be included in the ethics discussions so that students were able to practice advocacy strategies, although no empirical data was provided to support this recommendation. Case examples were the primary instructional method used to teach trauma theory and practice classes in an MSW program (Abrams & Shapiro, 2014). The authors noted that the social work profession would benefit from the development of standards and guidelines for writing cases and incorporating them into the classroom curriculum.

While case examples are frequently used when teaching social work ethics, very few experimental studies in social work have explored the effectiveness of this approach. One such study, however, was conducted to evaluate child protection social workers' decision-making process using case examples (Stokes & Schmidt, 2012). The case examples were developed using a computer-generated tool to analyze eight independent variables in decision-making. These variables included harm to the child, income, housing, culture, parental substance use, 23 family violence, resources and support, and cooperation. In this study, the case example was the unit of analysis. Respondents (n = 118) answered questions related to the case examples (n = 327) and multiple regression analysis was used to examine the effect of the variables on the assessment of risk, service provision, and the number of contact hours. The researchers concluded that while objective risk assessment tools can inform decision-making, social workers also relied on relationships and experience during the decision-making process.

Ethics instruction in social work education

A variety of instructional approaches can be found in the social work literature regarding the design and sequencing of ethics education in social work. Fossen et al. (2014) taught ethical decision-making to undergraduate social work students by infusing readings, short lectures, small group case studies, and discussions throughout the curriculum. Conversely, Edwards and Addae (2015) developed a stand-alone, web-based elective course on rural social work practice for undergraduate students that included ethical scenarios and the application of ethical standards using an ethical decision-making model. Similarly, Gray and Gibbons (2007) developed a five-week learning unit on ethical decision-making, with an emphasis on values and ethics, rather than frameworks for logical decision-making. Boland-Prom and Anderson (2005) approached teaching ethics by using dual relationship principles to evaluate complex ethical situations and apply the NASW Code of Ethics. Osmo and Landau (2001) claimed that teaching students the value of explicit argumentation in ethical decision-making would better prepare students to justify ethical decisions in practice. More recently, Groessl (2015) conceptualized a social work course that used problem-based learning, reflective thinking, and the application of a decision-making model to teach ethics in a master's level social work program. Still, others have proposed conceptual frameworks for teaching ethical behavior such as the Top 5 Ethical Lessons approach 24 (Castro-Atwater & Hohnbaum, 2015), the application of a common morality focusing on what one should not do (Bryan, 2006), and an ethical genogram that explores family of origin issues that impact ethical decision-making (Peluso, 2003). Each of these models described a structure by which ethical issues may be examined, although the authors did not conduct any research regarding the model's effectiveness. Interestingly, every approach noted previously utilized case examples to demonstrate how the model worked or how it could be applied in the classroom, but no empirical research was conducted on the effectiveness of the approach on learning or a critical examination of the specific case examples that were used.

The use of case examples to teach ethical lessons is well-supported in the literature (Antes et al., 2009; Boland-Prom & Anderson, 2005; Dodd & Jansson, 2004; Fossen et al., 2014; McCormick et al., 2014; Pawlukewicz & Ondrus, 2013; Stokes & Schmidt, 2012) and can be found in a variety of disciplines including nursing (Park, 2013), social work (Ringel & Mishna, 2007), and business (Nelson et al., 2014). Case examples, if designed properly, can be enjoyable, engaging, and satisfying for learners as they promote critical thinking and require advanced reasoning skills (Harkrider et al., 2013). Conversely, the use of case examples may also create anxiety or result in poor learning outcomes if the case examples are unnecessarily ambiguous or lack sufficient structure (Harkrider et al., 2013). Thus, crafting case examples to address ethical dilemmas and other ill-structured problems requires a systematic approach to promote learning outcomes.

Purpose of the study

Given the paucity of empirically supported emotive content literature related to the effectiveness of case examples to address ethical dilemmas, questions arise about whether students are adequately prepared to address the complex ethical issues presented in their professional disciplines. More research is needed that focuses on the complexity of ethical issues as well as the process and outcomes of resolving ethical dilemmas (Doyle et al., 2009). This study was designed to examine the effect of emotive content on knowledge acquisition and ethical sense-making using an ill-structured case example.

The following research questions guided the study:

1. What effect does the presence of emotive content have on knowledge acquisition?
2. What effect does the presence of emotive content have on ethical sense-making?

Method

Research design

This study employed a posttest-only experimental design. The independent variable for this study was the presence or absence of emotive content in the case example. The dependent variables were knowledge acquisition and ethical sense-making. A list of random numbers from 1 to 100 was used to distribute the study materials. Study materials were contained within plain, white envelopes, each with a unique identification number. All study materials were identical, except for the case example. Numbers 1 to 50 were used for the emotive case example (experimental group) and numbers 51 to 100 were used for the non-emotive case example (control group). Participants randomly sat at any seat with a study packet to complete the study.

Participants and setting

The study population was graduate social work students enrolled at a university in the coastal United States. To participate in this study, students had to be enrolled in graduate-level academic coursework in social work. Students could be concurrently enrolled in the field education practicum; however, this was not a requirement to participate in the study nor did it make a student ineligible to participate. Students who earned a grade of F in any social work course were excluded from the study.

Instruments and materials

Case example

A new case example was developed for this study because there were no published social work case examples that were suitable. The case example was related to

several common, yet complex ethical issues confronted by social workers in practice settings (Authors, 2017). For this study, the case example focused on a social work student who was completing a field practicum in a human service agency. The social work student was working with teenage clients under the supervision of a more experienced social worker. Ethical issues related to privacy/confidentiality, issues with establishing boundaries with clients, private conduct, and managing conflicts of interest were embedded in the case example. These ethical issues are frequently encountered in social work practice settings. Additionally, the use of social media was introduced. This is a relevant ethical issue because the NASW Code of Ethics in effect at the time of the study did not address this issue on point and agency policies may be absent or incongruent with practice behaviors. Appendix A provides the case example without emotive content. Appendix B provides the case example with emotive content bolded.

The case example was altered based on the presence or absence of emotive content. For this study, emotive content was defined as information related to the character's emotional reactions or feelings, background, beliefs, physical appearance, and/or goal focus of the character. Emotive content was used to develop the character's personalities, relationships, and reactions to one another. While this study was not exploring any one dimension of emotive content, the use of positive and negative affective words was used to enhance the case example along with additional descriptive emotive content. Affective words were drawn from the Affective Norms for English Words (ANEW) research, which has been conducted over the last two decades, and provides normative emotional ratings for almost 14,000 words (Bradley & Lang, 1999; Stevenson et al., 2006; Warriner et al., 2013).

The case example used for this study was developed by incorporating the attributes of ill-structured problems as articulated by Jonassen (2011). Table 1 provides a summary of each attribute along with a description of how each attribute was integrated into the case example used in this study. Table 2 provides a summary of key differences between the emotive and non-emotive case examples.

Jonassen (1997) proposed six steps to design instruction that engages learners in solving ill-structured problems. These are: (1) articulate the problem context, (2) introduce problem constraints, (3) locate, select, and develop cases for learners, (4) support knowledge base 12 construction, (5) support argument construction, and (6) assess problem solutions (Jonassen, 1997). Table 3 summarizes each step of the design process and how it was addressed in the case example developed for this study.

Knowledge acquisition

The knowledge acquisition measure assessed the extent to which participants remembered and processed basic information about the case example. The knowledge measure contained seven multiple-choice questions, with four possible answer choices in each question. The knowledge measure included context-specific questions (e.g., character names, the primary setting for services) and principle-based items (e.g., relevant ethical standards, primary ethical dilemmas in the case). Participants selected one answer per question, with each correct answer yielding one point.

Table 1 Attributes of ill-structured problems and case examples

Attribute	Attribute Description	Case example in this study
Structuredness	Contains unknown problem elements, multiple solutions are possible, and may require exploration of personal beliefs before arriving at a solution	Specific references to applicable social work ethical codes are not referenced in the case example. Case example requires exploration of feelings about client potentially disobeying a supervisor's request, and applicability of multiple ethical standards. Several outcomes are possible
Complexity	Numerous issues are represented in the problem, issues interact and connect in unpredictable ways, and issues may be inconsistent over time	Several ethical issues are applicable including confidentiality/privacy of personal information, dual or multiple relationships with clients, use of social media/technology, and use of consultation/supervision
Dynamicity	Task environment less static and more dynamic, problem factors change over time	Social work student shares personal pictures with a client. The client fails to show up for the group session and their whereabouts are unknown. The use of technology/social media to find clients may violate ethical standards
Abstractedness	Problem situated in a very specific context requires advanced domain-specific knowledge to generate and evaluate possible solutions	Problem context is a family service agency serving troubled youth and their families. Knowledge related to human development, agency policy and practice, and ethical conduct is needed

Table 2 Examples of Differences Between the Emotive and Non-Emotive Case Example

	Emotive case example	Non-emotive case example
The demographic background of the characters	Kayla is a 22-year-old, 4.0 graduate student Hannah is 14 years old and lives with her mother	No age or GPA was provided for Kayla No age or living situation was provided for Hannah
Personality/demeanor	Kayla is anxious about working with teens and looks younger than her chronological age Hannah is a shy, quiet girl and keeps to herself	No information about Kayla's physical appearance or feelings about working with teens No information was provided about Hannah's personality
Physical appearance	Hannah is thin and wears baggy clothes	No additional information was provided about Hannah's physical appearance
Goal focus/motivation	Ryan has worked with other students and is eager to work with Kayla	No additional information about Ryan's motivation to work with Kayla
Affective Norms for English Words	There were 24 additional affective words in the case example, such as surprising, jealous, anxious, and nervous	No additional affective words were used

Table 3 Steps Used to design instruction for ill-structured problems

Step	Jonassen (1997)	Example in case
1	Articulate problem context	The setting is a family service agency. Characters are. Named: Kayla (student), Ryan (supervisor), Hannah (client), Taylor (peer). Information about work and school experience, living situations, and leisure activities was provided. Relationships between clients, students, and supervisors were noted
2	Introduce problem constraints	Constraints include client safety, ethical standards, and urgency of response time
3	Locate, select, and develop cases	The problem (use of social media and technology) is based on an authentic, realistic problem commonly encountered in practice settings. This type of problem is challenging because agency policies vary and ethical standards are evolving. Different solutions to the problem are possible
4	Support knowledge base construction	The case was constructed by consulting social work faculty for varying perspectives and opinions on the topic as well as examples of issues encountered by students in field placements
5	Support argument construction	The problem can be conceptualized in several ways including issues related to privacy and confidentiality, practitioner competence, informed consent, and dual/multiple relationships. Multiple ethical standards can be considered to support opposing arguments
6	Assess problem solutions	The problem solution will be assessed using a rubric. Learners' ability to reflect on domain-specific knowledge related to social work practice and ethical standards is included in the rubric

The sum of correct answers produced an overall knowledge score, with seven being the highest possible score.

Ethical sense-making

Assessing performance on ill-structured problems is best accomplished by constructing a response, rather than selecting a response from predefined answers (Jonassen, 2014). Ethical sense-making was based on four constructs: (1) the identification of the relevant ethical issues, (2) an analysis of potential consequences or outcomes, (3) resolution or action steps to address the ethical dilemma, and (4) the application of relevant ethical standards. Using these constructs to assess ethical sense-making was chosen because of the heavy emphasis in the social work literature regarding these elements (Congress, 2000; Fossen et al., 2014; Reamer, 2006; Strom-Gottfried, 2015) and several validated instruments used to assess ethical decision-making which contains these elements (Carlin et al., 2011; Idhraratana & Kaemkate, 2012; Miñano et al., 2017; Shuman et al., 2004).

Performance rubric

A scoring rubric was developed to evaluate the written responses to the open-ended questions. Due to the potentially subjective nature of scoring these open-ended questions, a second-rater was used to address reliability. Key features from established rubrics such as the Pittsburgh-Mines Engineering Ethics Assessment Instrument (Schuman et al., 2004), the EDM Assessment rubric (Indhraratana & Kaemkate, 2012), and the Health Professional Ethics Rubric (Carlin et al., 2011) were synthesized along with the social work literature on ethics education and decision-making to develop the Social Work Ethical Sense-Making Rubric (SWESMR). The Social Work Ethical Sense-Making Rubric (SWESMR) was used by two raters to assess responses to the open-ended questions regarding ethical sense-making using a four-point scale. The raters were social work faculty with over five years of experience teaching graduate social work students and licensed to practice clinical social work. These requirements were necessary to ensure that the raters had sufficient experience teaching and grading graduate-level written responses using rubrics and were familiar with the current NASW Code of Ethics.

The raters reviewed the SWESMR and clarified the meaning and intent for each item on the SWESMR, then independently scored five participant responses using the SWESMR. The raters met again to review the responses and discuss ratings. The five responses were used to establish consistency of meaning and interpretation of the SWESMR rubric. The raters independently scored the remaining open-ended responses using the SWESMR. Inter-rater reliability was calculated using Cohen's kappa, $k = 0.583$, 95% CI [0.452, 0.714], $p < 0.001$, resulting in moderate agreement between the two raters (Viera & Garrett, 2005).

Validity and reliability

To address the validity and reliability of measurement instruments and the case example, a field test was conducted with a small group of recent graduates of a Master of Social Work (MSW) program. Recent graduates read the case example and answered the study questions. Feedback was solicited regarding the case example, study questions, general instructions, and time needed to complete the study. Revisions to the case example, measurement instruments, and general instructions were made based on these responses. The amount of time needed to complete the field test was noted to ensure sufficient time was allotted for the actual study. Social work faculty and field instructors engaged in social work practice were used to assess the appropriateness and relevance of the case example to current social work practice situations. Face validity was established by experts in the social work and counseling field.

Procedures

Upon IRB approval, a solicitation email was sent to all MSW students at the University. All participants completed the study in less than 1 h and 45 min. Study materials were contained in two packets. The first packet contained the case example, open-ended questions, and a copy of relevant sections from the NASW Code of Ethics. The second packet contained knowledge acquisition questions and demographic-related questions such as age, gender, ethnicity, MSW program type, field practicum, and social work experience.

Results

Emotive and non-emotive groups

A total of 71 MSW students took part in the study. The emotive group ($n=37$) was comprised of 32 women and five men. The non-emotive group ($n=34$) was comprised of 30 women and four men. The mean age for all student participants was 29.63 ($SD=8.37$). The minimum age was 21 and the maximum age was 55 (range = 34). To examine age differences, an independent samples t-test was run to determine if there were differences in the mean age between the emotive and non-emotive groups. There was no statistically significant difference in mean age between the emotive ($M=29.70$, $SD=8.55$) and non-emotive groups ($M=29.55$, $SD=8.29$), $t(69)=0.072$, $p=0.943$.

In terms of students currently in a field placement ($n=54$), the majority were in their foundation/generalist placement ($n=40$) as compared to the concentration placement ($n=14$). The emotive group was comprised of 28 students who were in a field placement and 9 students who were not in the field. The non-emotive group was comprised of 26 students who were in a field placement and 8 students who were not in the field. A chi-square test of association was conducted to determine

Table 4 Demographic characteristics of the emotive and non-emotive groups

Treatment group	Female gender n (%)	Age M (SD)	In field placement n (%)	Employed n (%)	Caucasian ethnicity n (%)
Emotive ($n=37$)	32 (86.5%)	29.70 (8.55)	28 (75.7%)	10 (27.0%)	28 (75.7%)
Non-emotive ($n=34$)	30 (88.2%)	29.55 (8.29)	26 (76.5%)	10 (29.4%)	24 (70.6%)

Table 5 Correct responses to knowledge acquisition questions by treatment group

Treatment group	Context-based Questions			Principle-based questions			
	Primary setting	Social worker name	Reason for services	Central ethical issue	Relevant ethical standard	Most unethical behavior	Minimize ethical risk
Emotive (n=37)	36	34	20	13	13	24	23
Non-emotive (n=34)	34	33	23	13	17	20	27

if there was an association between students currently in a field placement and the student groups. There was no statistically significant association between being in a field placement and the study groups, x^2 (1) = 0.006, $p=0.938$.

Overall, most students were not currently employed in the social work field ($n=51$). The emotive group was comprised of 10 students who were employed and 27 students who were not employed. The non-emotive group was comprised of 10 students who were employed and 24 students who were not employed. A chi-square test of association was conducted to determine if there was an association between students currently employed and the study groups. There was no statistically significant association between being in a field placement and the study groups, x^2 (1) = 0.050, $p=0.823$.

In response to an open-ended question regarding race/ethnicity, students in the emotive group were: White/Caucasian ($n=28$), Black/African American ($n=6$), Hispanic/Latinx ($n=1$), White/Caucasian and Hispanic/Latinx ($n=1$), and American Indian ($n=1$). Students in the non-emotive group were: White/Caucasian ($n=25$), Black/African American ($n=3$), Hispanic/Latinx ($n=2$), White/Caucasian and Hispanic/Latinx ($n=1$), Black/African American and Indian/Asian ($n=1$), Black/African American and Puerto Rican ($n=1$), and Mixed ($n=1$). Table 4 shows the demographic characteristics of the emotive and non-emotive groups.

Knowledge acquisition

The knowledge acquisition measure assessed the extent to which participants remembered and processed basic information about the case example. The knowledge measure included context-specific questions (e.g., character names, the primary setting for services) and principle-based items (e.g., relevant ethical standards,

primary ethical dilemma in the case example). Correct responses to the context-specific questions for both groups included: the primary setting in which the case example occurred ($n=70$), the name of the social work student ($n=67$), and the main reason the client was receiving services ($n=43$). Correct responses to the principle-based items for both groups included: the central ethical issue ($n=26$), the most relevant ethical standard ($n=30$), the most unethical behavior social workers engaged in ($n=44$), and minimizing ethical risk ($n=50$). Table 5 shows the number of correct responses to the knowledge acquisition questions for the emotive and non-emotive groups.

Knowledge acquisition scores were normally distributed with skewness of −0.151 ($SE=0.285$) and kurtosis of −0.980 ($SE=0.563$). To examine mean differences between the emotive and non-emotive groups, an independent samples *t*-test was conducted. Variances were homogeneous, as assessed by Levene's test for equality of variances ($p=0.688$). There was a statistically significant difference in knowledge acquisition scores between the emotive and non-emotive group, $t(69), = -2.22$, $p=0.030$, $d=0.53$. The non-emotive group mean knowledge acquisition score ($M=4.91$, $SD=0.96$) was higher than the emotive group mean knowledge acquisition score ($M=4.40$, $SD=0.96$).

The extent to which knowledge acquisition scores were associated with respondent characteristics was also assessed. Age was not normally distributed, based on a skewness of 1.360 ($SE=0.285$). A Spearman correlation was run to assess the relationship between age and knowledge acquisition scores. Preliminary analysis showed a weak negative correlation between age and knowledge acquisition scores $r_s=-0.092$, $p>0.05$.

An independent samples *t*-test was run to determine if there were differences in knowledge acquisition scores between students in a field placement and not in a field placement. Variances were homogeneous, as assessed by Levene's test of equality of variances ($p=0.876$). There was a statistically significant difference in the mean scores between students in a field placement or not in a field placement, $t\ (69)=2.02$, $p=0.047$, $d=0.56$. Students currently in a field placement had higher knowledge acquisition scores ($M=4.77$, $SD=0.96$) than students not in a field placement ($M=4.23$, $SD=0.97$).

Table 6 provides a summary of the two significant differences found in knowledge acquisition scores.

Table 6 Significant differences in knowledge acquisition scores

Comparison	N	M	SD	t	*df*	*p*	D
Treatment group				−2.22	69	0.030	0.53
Emotive	37	4.40	0.96				
Non-emotive	34	4.91	0.97				
In field placement				2.02	69	0.047	0.56
Yes	54	4.77	0.96				
No	17	4.23	0.97				

Ethical sense-making

Ethical sense-making was assessed using a rubric and two raters. The raters independently scored responses to three open-ended questions (identification of ethical issues, analysis of the ethical situation, and resolution of the ethical situation) and assessed responses from all questions for the application of ethical standards. The sum of the scores was used to produce an overall ethical sense-making score, with 16 being the highest possible score. Cronbach's alpha was run to determine the internal consistency of the four items to measure the construct of ethical sense-making, returning an acceptable level of internal consistency, as determined by a Cronbach's alpha of 0.740.

Ethical sense-making scores were normally distributed with skewness of −0.370 ($SE = 0.285$) and kurtosis of 0.416 ($SE = 0.536$) An independent *t*-test was run to determine if there were differences in the ethical sense-making scores between the emotive and non-emotive groups. There was no significant difference in the mean ethical sense making scores between the emotive group ($M = 11.93$, $SD = 11.93$) and the non-emotive group ($M = 12.60$, $SD = 2.05$), $t\ (69) = -0.1.35$ $p = 0.180$.

The extent to which ethical sense-making scores were associated with respondent characteristics was also assessed. Age was not normally distributed, based on a skewness of 1.360 ($SE = 0.285$). A Spearman correlation was run to assess the relationship between age and ethical sense-making scores. Preliminary analysis showed there was a weak negative correlation between age and ethical sense-making scores, $r_s = -0.123$. $p > 0.05$.

An independent samples *t*-test was run to determine if there were differences in ethical sense-making scores between students currently in a field placement ($n = 54$) and not in a field placement ($n = 17$). There was no statistically significant difference in the mean ethical sense making scores between students currently in a field placement ($M = 12.36$, $SD = 2.18$) or not in a field placement ($M = 11.91$, $SD = 1.79$), $t\ (69) = 0.768$, $p = 0.445$.

Discussion

Knowledge acquisition

The knowledge acquisition measure was designed to assess the extent to which students remembered and processed basic information about the case example. In this study, the non-emotive group scored higher on the knowledge acquisition measure than the emotive group. While the added emotive content enhanced the realistic nature of the case example, the extra content may have been extraneous or distracting for students, thus resulting in lower scores for the emotive group (Abercrombie, 2013). Likewise, the emotive case example, due to its increased length and specific details, may have increased cognitive load and strained working memory, thereby resulting in fewer correct answers for the emotive group (Peacock et al., 2013). The addition of emotive content may have cultivated an emotional reaction to the characters and ethical situation presented in the case example. An emotional reaction can

influence decision-making (Pugh, 2017) and in this instance, result in fewer correct responses for the emotive group. Conversely, the lack of emotive content and shorter case examples may have allowed the non-emotive group to focus on the facts, which lead to higher scores on the knowledge acquisition measure.

Another statistically significant difference was found in the total knowledge acquisition scores between students in a field placement and not in a field placement. Being in a field placement means that students are actively engaged with clients and other professionals in real-life settings and experiencing real-life ethical dilemmas. It is possible that the students in a field placement were better able to incorporate their current and prior learning experiences since the case example was based on a collection of real-life examples from field placement settings. Prior experiences can be used to understand a problem, anticipate outcomes, and form a mental model that aids in developing a solution (Brock et al., 2008; Mumford et al., 2008). Similarly, students without sufficient field experience may have experienced the case example as a novel situation and lacked sufficient domain-specific knowledge to assess or evaluate possible solutions (Jonassen, 2000). The complex cognitive processes that are required to make sense of new situations may have overwhelmed the students without field experience, thus resulting in lower scores (Caughron et al., 2011).

Ethical sense-making

There was no statistically significant difference in the ethical sense-making scores between the emotive and non-emotive groups. A potential reason for the lack of statistically significant findings may be due to the ill-structuredness of the case example. The ill-structured nature of the case example, coupled with only one form of assessment to evaluate ethical sense-making (SWESMR), may have been inadequate to determine whether differences in responses existed between the two groups. Jonassen (2011) argued that "nothing worth knowing can be adequately assessed using any single form of assessment" (p. 354). Therefore, additional measures or rubrics that are more sophisticated may be necessary to gauge the quality of the problem identification and proposed solutions, as well as the ability to transfer knowledge and skills to new problems.

The literature suggests that ethical dilemma case examples should be realistic, include concrete details, and be open to interpretation (Jonassen, 2011). The inclusion of emotive content, such as relationships between the characters and added affective words, was intended to enrich the case example with details that would increase realism, enhance emotional reactions, and facilitate learning (Thiel et al., 2013). The added features, however, may not be necessary to engage in ethical sense-making. Social work ethics education places a heavy emphasis on the management of personal values, the purpose of ethical standards, and the application of a Code of Ethics to resolve ethical dilemmas (CSWE, 2017). Since most students in this study were in a field placement setting, it is possible the students were currently experiencing real-life dilemmas, much like the one used in this study. Therefore, the emotive content may not be necessary to engage in the ethical sense-making process.

Feelings toward main characters

Overall, the mean score for the feelings question (M = 1.96) was the lowest of all scores on the rubric. To receive a score of one, the response had to be void of any affective words and no description of positive and/or negative feelings towards the main characters. Conversely, to receive a score of four, the response needed to contain numerous affective words, positive and/or negative feelings toward the main characters and describe how feelings may affect the identification/resolution of ethical issues. Only three responses received the highest possible score of four, while 23 responses received the lowest possible score of one. One explanation for the low scores is that the students may have been fatigued by the time they reached the last open-ended question. The students were handwriting their responses to the study, which lasted up to 90 min over a lunch break between classes. To ensure the study was completed during the allotted time, it is possible that students did not articulate a complete response to the last question. Another explanation is that the wording of the feelings question may have confused students. Many responses to this question contained what students thought about the characters, 64 rather than how they felt about the characters.

The three previous open-ended study questions requested specific examples of ethical issues, analyzing possible outcomes, and describing actions to resolve the ethical situation. The feelings question required a decidedly different response. Perhaps a better question would have been to inquire about the student's personal feelings that were being evoked while reading the case example, rather than their feelings toward the main characters. Social workers are taught to develop and convey empathic responses to clients while maintaining objectivity and guarding personal feelings toward the client (Hepworth et al., 2013). Perhaps the students felt something about the characters but did not convey those feelings in the response to remaining objective and unbiased. Another explanation is that the criteria used to assess the feelings question was flawed. As noted previously, none of the rubrics that were consulted to develop the SWESMR incorporated items to assess feelings. Because the primary goal of this study was to explore the effect of emotive content, it was necessary to develop some scale to evaluate participant responses. In the future, it may be informative to assess personal values and beliefs related to the ethical situation. The social work literature emphasizes the importance of personal reflection and the role of personal values and beliefs in the ethical sense-making process (Barsky, 2010; Dolgoff et al., 2012; Reamer, 2006; Strom-Gottfried, 2015). Additional research should explore this more fully.

Finally, it would be interesting to learn whether non-social work students would respond to the feelings question similarly as found in this study. Social workers embody compassion and concern for others in their daily work. Most, if not all, social workers genuinely 65 care about their clients and naturally have feelings toward those they work with. Although the responses to the feelings question did not result in significant differences between the groups, these findings may be unique to this specific audience. More research is needed to determine whether this finding is consistent with other similar professional disciplines such as counseling, or whether different results are found for professionals in non-helping disciplines.

Implications

Findings from this study provide some practical implications. This study found that the presence of emotive content resulted in lower knowledge acquisition scores and had no effect on ethical sense-making. The addition of emotive content may have impeded problem-solving and cognitive processing (Shackman et al., 2006). These findings are consistent with previous research that found too many seductive details detracted from learning (Abercrombie, 2013), and too many complexes caused overwhelmed novice learners (Johnson et al., 2012). Using case examples in the classroom challenges learners to analyze problems and make decisions with limited information, which simulates professional practice, however, the case examples must be constructed in a manner that enhances the ethical lesson. The social work literature is replete with the use of case examples as an instructional strategy to stimulate discussion about ethical dilemmas and emphasize ethical lessons (Abrams & Shapiro, 2014; Dodd & Jansson, 2004; Fossen et al., 2014; McCormick et al., 2014; Pawlukewicz & Ondrs, 2013; Ringel & Mishna, 2007), but rarely have researchers explored the effectiveness of this strategy. This study contributes to the literature by providing empirical support for the use of case examples as an instructional strategy and the effect of emotive content on knowledge acquisition and ethical sense-making.

The use of authentic and realistic case examples is well-supported in the literature; however, educators must consider several variables when developing case examples that are reflective of real-world dilemmas. Developing case examples that enrich the learning experience must include a thorough understanding of the learner's prior knowledge and experiences, otherwise, the level of difficulty may exceed the learner's current ability. Likewise, for the case example to be realistic, relevant and irrelevant information must be included. However, too many distractors or unimportant features may create unnecessary complexity and result in poorer learning 67 outcomes. For educators who want to increase the complexity of the case example, varying the structure of the case presentation is a good place to start. This could include altering how the case example unfolds (sequential versus piecemeal), integrating a variety of perspectives or voices into the case example, or incorporating multiple decision points and subsequent consequences (Kim et al., 2006). Developing realistic and authentic ill-structured cases can take a considerable amount of time. As this study illustrated, too much information or irrelevant details can distract learners from the ethical lesson, whereas insufficient details may diminish the authenticity of the case example. There appears to be a fine line between providing just enough information, as too much information strains working memory and too little information may result in an unrealistic case example. Therefore, educators would benefit from using a tested framework to develop ill-structured case examples. The framework used for this study, [which was synthesized from the work of Kim et al. (2006) and Jonassen (1997, 2011)], provides a practical approach to developing an ill-structured case example. This framework could save educators valuable time and resources and increase the likelihood that the case example will promote positive learning outcomes.

Limitations

The first limitation of the study is related to the sampling method and sample size. Students were recruited using emails, announcements in class, and flyers posted near student mailboxes. Students who wanted to participate in the study only needed to show up on one of the four days the study was conducted. This method of recruitment and the volunteer student sample was chosen to readily obtain participants for the study but may be a threat to external validity and the generalizability of the findings. To moderate this limitation, every student who consented to participate was included in the study. Notwithstanding the inclusion of all students who consented to participate, the overall sample size used for this study was small, especially since the data was disaggregated. Ideally, the sample size should be large enough to produce confidence that the selected sample mirrors the population (Sprinthall, 2012).

Another limitation is related to the rubric and raters used to score the open-ended questions. Every effort was made to score the open-ended responses as objectively as possible using the SWESMR, however, one of the two raters compiled the packets and knew which identification numbers represented the emotive and non-emotive groups. The second rater did not know which unique identification numbers corresponded to which group, although the content of the responses may have differentiated the groups based on specific details or facts from the case example that were contained within the responses.

Future research

Future research regarding ill-structured problems and emotive content should include an evaluation of working memory and cognitive load. Many studies have explored working memory capacity and emotions (Flores & Berenbaum, 2016; Lynn et al., 2016; Xie & Zhang, 2016) but these studies focused on working memory as it was related to emotional closeness and handholding, emotions, and facial expressions, and emotion conditions using a color wheel, respectively. More empirical 73 research is needed to understand the effect of working memory during the sense-making process (Martin et al., 2015). The ability to recall important information and apply it to new situations is critical to improving learning outcomes and professional practice.

Research has shown that a person's underlying values and beliefs can influence the ethical decision-making process (Barsky, 2010; Dolgoff, et al., 2012; Pugh, 2017; Reamer, 2006; Strom-Gottfried, 2015). Unfortunately, the present study did not assess this dimension. Additional research should be conducted to examine the effect personal values and beliefs have on the ethical sense-making process. Perhaps questionnaires such as the Professional Opinion Scale (Abbott, 2003) or the Ethical Values Assessment (Padilla-Walker & Jensen, 2015) could be used to assess personal values and beliefs as a factor in responding to an ill-structured ethical dilemma.

As this study illustrated, there are several ways to vary the case content and presentation, however, more research is needed to explore the effects of these variations.

For example, most case examples illustrate ethical missteps or transgressions, thus focusing on negative or problematic behavior (Antes et al., 2012). It would be interesting to discover if learning outcomes would be significantly different if the case example was constructed focusing on the correct steps to address the ethical dilemma and proper professional behavior.

This study did not include any transfer tasks or application of learning to new problems. One of the primary goals of education is to equip students with the knowledge and skills needed to practice in professional settings (Bixler & Land, 2010; Choi & Lee, 2009). More research is needed to understand whether the use of ill-structured case examples to teach ethics-related concepts results in transfer to a new problem or setting. Furthermore, studies exploring how cases are presented and delivered to learners may provide additional insights. Results from this study suggested that students who were engaged in a field placement performed better on the knowledge acquisition measure than students who were not in a field placement. This suggests real-life experience transfers to the classroom. Ultimately, educators strive to ensure that lessons learned in the classroom can be applied to real-world problems.

Conclusion

The results of this study enhance the current literature related to the development and presentation of effective case examples related to ill-structured problems. More specifically, this study demonstrated that utilizing the key attributes of ill-structured problems to develop a case example (Jonassen, 1997, 2011; Kim et al., 2006) is an effective approach to designing complex yet realistic learning experiences for students. Ethical dilemmas are the most ill-structured type of problem and students need to be taught how to solve these problems in preparation for real-life experiences.

This study specifically explored the effect of emotive content on knowledge acquisition and ethical sense-making. For case examples to be interesting and reflective of real-world problems, concrete details, and problem constraints must be introduced. However, findings from this study revealed that too much emotive content and/or unnecessary details may be distracting, which weakens the ethical lesson. These findings are consistent with the literature suggesting that case examples should be constructed using clear and simple information to improve knowledge acquisition and ethical sense-making (Johnson et al., 2012).

As we know, our world is becoming increasingly complex and contentious, resulting in problems that rarely impart agreement. Teaching all students, not just social work students, how to solve meaningful, ill-structured problems should be a function of formal education. The ability of students to identify problems, analyze consequences, and assess solutions will benefit society and future generations to come.

Appendix A: Case example without emotive content

Kayla is completing her field placement at a family service agency that provides afterschool supportive services for youth and their families. Kayla was assigned to work with Hannah a few weeks into her field placement. Hannah was referred to the program after missing school for several weeks. She had repeatedly been running away from home. Agency records indicate that Hannah was suspected of experiencing sexual abuse from her mother's brother when the family lived together in a small rural town in the eastern part of the state. Hannah currently lives with her mother who works various part-time jobs and is not home most of the time. Hannah also has an older brother who dropped out of school a few years ago.

To get to know Hannah, Kayla asked about her family and friends. Hannah began to open up to Kayla and even shared some pictures of her family and boyfriend on her cell phone. Kayla shared pictures of her family and boyfriend to build rapport with Hannah. After seeing the photos, Hannah exclaimed, "I have more on Facebook!" and immediately sent Kayla a friend request. Kayla wasn't sure whether she should accept the friend request or not.

Kayla's supervisor at her field placement is Ryan. Ryan asked Kayla to observe a group session with several youth. The focus of the group session was to learn how to manage conflict using I-statements. Ryan and Kayla engaged in a role-play to demonstrate the use of I-statements to the group. Ryan asked Hannah and another group member, Taylor, to try it out using a different role play. In the new role play, Taylor begs Hannah to skip class so the two of them can hang out with their boyfriends. At first, Hannah struggled to use I-statements, but after some prompting from Ryan and Kayla, Hannah describes the effect skipping school would have on her grades. After the group session ended, Kayla pulled Hannah aside to compliment her on her progress.

Later that evening, Kayla wrote on Facebook about her field placement and how much progress Hannah was making. As always, Kayla was careful not to use Hannah's name. In class the next day, students were asked to provide an update on their field placements. Kayla told the class about the role play and how Hannah was making progress.

For several weeks, Hannah had been attending the after-school program, but this week Kayla notices that Hannah is not there. Ryan didn't know where Hannah was, although Hannah was expected to return to the program and participate in the group session. After overhearing Taylor say something about Hannah, Ryan asked Kayla to check the Internet and social media accounts for any information regarding Hannah's whereabouts. Kayla immediately remembered Hannah's friend request and wondered if she might learn more from her Facebook page if she accepted the friend request and reviewed her posts, as Ryan requested.

Appendix B: Case example with emotive content (bolded)

Kayla, **an energetic 22-year-old who is a 4.0 student in her graduate social work program**, is completing her field placement at a family service agency that provides after-school supportive services for troubled youth and their families. **Kayla is anxious about working with teenagers since she is only a few years older than most of them and looks rather young herself.**

Kayla was assigned to work with Hannah a few weeks into her field placement. Hannah is **a 14-year-old girl who wears baggy clothes to cover her too-thin body. She rarely smiles and has a serious, sad look on her face most of the time.** She was referred to the program after missing school for several weeks. She had repeatedly been running away from home. Agency records indicate that Hannah was suspected of experiencing sexual abuse from her mother's brother when the family lived together in a small, **conservative** rural town in the eastern part of the state. Hannah currently lives with her mother who works **cleaning houses and at a local bar** and is not home most of the time. Hannah also has an older brother who dropped out of school **due to drug use** a few years ago. **Records note that Hannah is a bright, but quiet girl who tends to keep to herself. Kayla felt immediately drawn to Hannah and was invested in helping her.**

To get to know Hannah, Kayla asked about her family and friends **as she was curious about what Hannah did for fun and what her experiences at home were like.** Hannah began to open up to Kayla, **which was surprising given her shy nature**, and even shared some pictures of her family and boyfriend on her cell phone. **Kayla already thought that Hannah was too young for a boyfriend and was even more startled by the boyfriend's picture. The boyfriend looked like he was in college, but Kayla didn't want to embarrass Hannah so she kept those thoughts to herself. Kayla couldn't help but feel worried about Hannah, especially knowing her history of abuse**. Still, Kayla shared pictures of her family and boyfriend, **along with photos from their most recent trip to the mountains**, to build rapport with Hannah. After seeing the photos, Hannah exclaimed, "I have more on Facebook!" and immediately sent Kayla a friend request. Kayla wasn't sure whether she should accept the friend request or not **but was thrilled that Hannah was finally opening up to her**.

Kayla's supervisor at her field placement is Ryan. **Ryan, a licensed clinical social worker, has been at the agency for almost ten years. Ryan has had really good experiences with other social work students and was eager to work with Kayla since the last intern was recently hired by the agency**. Ryan asked Kayla to observe a group session with several youth. The focus of the group session was to learn how to manage conflict using I-statements. Ryan and Kayla engaged in a **spirited** role play to demonstrate the use of I-statements to the group. Ryan asked Hannah and another group member, Taylor, to try it out using a different role play. In the new role play, Taylor begs Hannah to skip class so the two of them can hang out with their boyfriends. At first, Hannah struggled to use I-statements **because she was nervous and intimidated by Taylor**, but after some prompting from Ryan and Kayla, Hannah describes the effect skipping school would have on her grades.

After the group session ended, Kayla **was very proud of Hannah's ability to demonstrate new skills and privately** pulled Hannah aside to compliment her **and tell her how delighted she was** with her progress. 92 Later that evening, Kayla wrote on Facebook about her field placement and how much progress Hannah was making. As always, Kayla was careful not to use Hannah's name. Kayla felt a sense of pride as she reflected on her professional growth and thought that maybe she could work effectively with teenagers after all. In class the next day, students were asked to provide an update on their field placements. Excitedly, Kayla told the class about the role play and how grateful she was that Hannah was making progress. For several weeks, Hannah had faithfully been attending the after-school program, but this week Kayla notices that Hannah is not there. Kayla was confused and asked Ryan if he knew why Hannah was absent. Ryan didn't know where Hannah was, although Hannah was expected to return to the program and participate in the group session. After overhearing Taylor say something suspicious about Hannah and her boyfriend, Ryan asked Kayla to check the Internet and social media accounts for any useful information regarding Hannah's whereabouts. Kayla immediately remembered Hannah's friend request and wondered if she might learn more from her Facebook page if she accepted the friend request and reviewed her posts, as Ryan requested. Kayla didn't recall reading anything in the agency policies about Facebook but since Ryan asked to her check, she assumed it was okay.

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

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