Electronic harassment: Concept map and definition

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PI: Megan Moreno, MD, MSEd, MPH
Seattle Children's Research Institute
PI: Social Media and Adolescent Health Research Team
Center for Child Health Behavior and Development
2001 8th Ave Suite 200
(mail) M/S CW8-6, PO Box 5371, Seattle, WA 98145-5005
Phone: 206.884.1424|Fax: 206.884.7801
megan.moreno@seattlechildrens.org

ABSTRACT

Background: Bullying behaviors are common among adolescents and are associated with numerous negative health and social consequences that can persist into adulthood. More recently, bullying behaviors have migrated to online platforms where they are not well understood and lack standardized definitions. The purpose of this study was to develop an evidence-based concept map and definition.

Methods: We used Concept Mapping, this validated approach includes five steps: preparation, generation (brainstorming), structuring (sort and rank), representation (statistical analysis) and interpretation. We recruited participants including adolescents, parents, and professionals representing education, health and the justice system to participate Analysis included hierarchical cluster analysis to determine a cluster map representing cyberbullying.

Results: A total of 177 participants contributed to the concept mapping process, including 69% females, 50% adults, 68% Caucasian and representing each of our 5 stakeholder groups. A total of 228 brainstorming items were generated and were sorted into a concept map that included 9 clusters. Through the interpretation step, a conceptual model emerged illustrating connections and distinctions between traditional bullying and cyberbullying.

Conclusions: We found that in generating a stakeholder-driven concept map of cyberbullying, participants could not describe cyberbullying without integrating key concepts from traditional bullying. However, unique characteristics of cyberbullying may mean that uniform definitions of bullying need to be evaluated for their application to cyberbullying.

INTRODUCTION

Bullying is both a public health as well as criminal justice problem that occurs throughout the world and can happen at many stages in the life course- from childhood, to adolescence, even into adulthood. While traditional "schoolyard" bullying remains problematic, in recent years, technologies have provided new platforms on which bullying can occur. These electronic forms of contact may include e-mail, blogs, social networking websites (e.g. Facebook, Twitter), online games, forums, instant messaging (IM), Skype, text messaging, and mobile phone pictures. This phenomenon has been come to be known as cyberbullying.

Previous studies have examined the substantial negative effects that cyberbullying can have on both targets and perpetrators. Adolescents who have experienced cyberbullying report higher levels of depression and lower self-esteem.[1] Further, emotional distress, anger, sadness, detachment, externalized hostility, and delinquency are more common in targets of cyberbullying than that of the general population.[2] Many of these effects are also seen in targets of traditional bullying, suggesting similarities in the negative consequences of these phenomena.[3] Perpetrators are more likely to be convicted of a crime in early adulthood, report difficulty making friends, have poor performance in school and are at increased risk of abusing drugs and alcohol.[4]

Assessing the prevalence of cyberbullying remains challenging, in part because the field lacks a conceptual approach or an operational definition of the term.[5] A consistent definition can support the consistent tracking of bullying over time. Conceptualizing and defining cyberbullying has been called one of the major challenges in the bullying field.[6] The CDC has developed a uniform definition of bullying as follows: *Bullying is any unwanted aggressive behavior(s) by another youth or group of youths who are not siblings or current dating partners that involves an observed or perceived power imbalance and is repeated multiple times or is*

highly likely to be repeated. Bullying may inflict harm or distress on the targeted youth including physical, psychological, social, or educational harm. [7] Four different types of bullying are commonly identified—physical, verbal, relational, and damage to property.[8] Observational studies have shown that the different forms of bullying that youths commonly experience may overlap.[9,10] In the CDC definition, bullying by digital electronic means is considered a context in which bullying occurs.

The extent to which the CDC definition can be applied to cyberbullying is unclear, particularly with respect to several key concepts within the CDC definition. A study that used focus groups with college students to discuss whether the CDC definition applied to cyberbullying found that students were wary of applying the definition due to their perception that cyberbullying often involves less emphasis on aggression, intention, and repetition than other forms of bullying.[11]

The purpose of this study was to develop a concept map to describe cyberbullying and an evidence-driven definition. To fulfill this purpose, we applied concept mapping methodology. This methodology is frequently used towards developing conceptual frameworks to describe complex topics.[12-16] This mixed methods approach integrates qualitative data collection methods and quantitative analytical tools.[12,14] The outcome of this process is a concept map, a visual representation of the key concepts and their inter-relationships. The final map that is created is entirely in the language of the participants and produces a visual representation that is easy to interpret. This method has been used in previous health research to provide insights into complex phenomenon such as adolescent sexual behavior or mental illness.[13,17-19]

METHODS

Study setting and design

This study was conducted in Washington state and incorporated stakeholders from academic and community settings. The Western Institutional Review Board approved this study.

Participants

The concept mapping approach is ideally suited to data collection from stakeholders relevant to the concept under investigation. In order to ground our conceptual framework in views of stakeholders involved in cyberbullying, participants included adolescents and young adults, defined as youth age 12 through 25 years, as well as parents of children these ages. Cyberbullying can occur in the home, school and community. Thus, our goals for purposeful sampling included representatives from these places. To represent the home environment, we recruited parents of teens. To represent schools, we included educators including teachers and administrators. To represent community members involved in cyberbullying, we recruited professionals involved in cyberbullying including health professionals such as physicians, nurses, social workers, researchers and counselors. To include professionals involved in law and policy, we included attorneys. All participants were recruited to be part of one step of the Concept Mapping process through purposeful sampling from a variety of academic and community organizations between March 2013 and December 2015. Purposeful sampling included contacting local schools, parent organizations and universities to identity participants. Additional eligibility criteria included English speaking and involvement with adolescents in their home or work roles. Each adult participant gave written consent for participation, parental consent and adolescent assent was obtained for youth participants. Before the start of each data

collection, participants completed a demographic survey which included questions about age, gender, race/ethnicity and role (i.e. student, professional, parent).

Concept mapping

The concept mapping methodology was chosen because it directly involves participants and balances group consensus with individual contributions as some steps require group participation while others are done individually. This process grounds findings in the language of the participants and provides a visual product that can be interpreted. The method also allows for the consolidation of key concepts from a broad array of initial data points. There are five steps involved with the concept map creation process: preparation, generation, structuring, representation, and interpretation.[12]

Preparation

The goal of preparation is to develop a focus prompt used to encourage brainstorming statements from participants in the generation step. The focus prompt was specifically designed to be an open ended question that required participants to complete a sentence in order to achieve consistent phrasing. During preparation, we developed a focus prompt of "*A behavior or characteristic of cyberbullying is…."* This focus prompt was pilot tested with a convenience sample of adolescents, researchers and healthcare providers prior to its use for data collection.

Generation (Brainstorming) Sessions

The goal of the brainstorming step is to generate a large list of participant-generated items with sufficient breadth and depth to represent the full spectrum of ideas related to what defines cyberbullying. The concept mapping literature describes two approaches to collect

brainstorming responses: online survey and focus groups. Because our goal was to develop a brainstorming list with sufficient breadth and depth to inform our concept map, we used both approaches. First, individual brainstorming responses were conducted using a secure online survey tool. The goal of the online brainstorming approach was to allow for greater reach in participant sampling among the adult professional population.

Further, the brainstorming step was conducted using a semi-structured focus group format. Focus groups allowed for interaction between participants as well as opportunities for participants to build on each other's thoughts.[20] Each session lasted between 45 and 90 minutes.

After obtaining consent and providing instructions, the facilitator presented the focus prompt to the group. Participants were initially given 10 minutes to write individual responses to the prompt on paper, and then the topic was opened for group discussion towards further idea generation and revision. At the conclusion of the session, all written responses were collected from the participants and any additional ideas that were discussed by the group as a whole were recorded by the facilitator through transcription of the audio recording. Participants who completed the online survey received a $5 incentive, those who contributed to a focus group received a $20 incentive. All focus groups were audio recorded and transcribed verbatim.

The brainstorming list was then reviewed by the two primary investigators to eliminate redundancy and compiled into one revised list that represented all ideas and statements generated by the brainstorming step.

Structuring (Sorting and Rating) Sessions

The goal of the structuring step was to sort and rank the statements that were generated in the brainstorming step. This process provides insights into how individual ideas are related to

form overarching constructs. In the sorting step participants were given a stack of index cards each of which had a single written item from the revised brainstorming list. Individuals were asked to sort the cards into categories that made sense to them and create a label for each pile. All groups were determined by the participants, each item could only be sorted into one group and every group needed to at least one item within it.

In the second activity, participants were given the revised list of brainstorming statements and individually rated each item on a scale of 1-5, with 1 indicating an aspect of cyberbullying that was not very important to its definition and 5 indicating an aspect of cyberbullying that was critical to its definition. Participants who completed the focus group received a $20 incentive.

Representation

The goal of representation was to apply quantitative approaches to analyze the sort and rank data into a visual point map representing individual items. Analyses were conducted using the Concept Systems Core software Build 2016.062.11 (Concept Systems, Inc, Ithaca, NY) and SAS software version 9.3 (SAS,Cary, NC). Sort data was organized into a square symmetric similarity matrix (SSSM) for each participant, which denoted whether each pair of brainstorming items had been grouped together. An overall SSSM was constructed by summing the matrices for all participants. Multidimensional scaling (MDS) of the overall SSSM was used to produce a two-dimensional point map. Stress index was calculated to assess the fit of the MDS solution to the data. Stress indices ranging from 0.10 to 0.35 indicate acceptable fit, with lower values indicating better fit.

The cluster map was created by applying discrete statement groupings or clusters to the point map. We applied hierarchical cluster analysis (HCA) over the overall SSSM. During this

step, the software analyzes the data to perform cluster analysis and multidimensional scaling (MDS) in order to create a visual representation of the ideas in the form of clusters. The analysis groups the ideas according to the results of the MDS into clusters. Items that were similarly categorized by participants appear closer together on the map than items that were not commonly categorized together. A standardized method was employed to determine the appropriate number of clusters. Each cluster was initially named by the software based on the ideas generated by participants, names were reviewed and revised for clarity by three raters. The draft concept map was reviewed by all investigators to ensure it was qualitatively consistent and logical. Any revisions to the map were based on consensus of all investigators.

Interpretation

The goal of these sessions was to allow participants to view, discuss and interpret the concept map. These sessions included group and individual discussions, in both cases the discussion was led by a facilitator and began with introduction and review of the Concept Mapping methodology. The steps of the project and the focus prompt were reviewed, then the preliminary concept map was introduced. Participants were asked to discuss cluster groupings and labels as well as to explore the overall structure of the map. Each group was asked ways in which the map represented the definition of cyberbullying and also ways it could be improved.

After conducting 7 focus groups we conducted an interim analysis of the data. A consistent theme within the qualitative data was participants' request to see the concept map represented as a diagram, participants gave input on what the diagram should look like including "using Venn circles." Based on this consistent feedback, an interpretation diagram, or conceptual model, was developed by investigators to represent the key constructs within the concept map.

We then conducted an additional series of both group discussions and key informant interviews to obtain feedback on both the concept map and conceptual model to ensure these visual representations of our data were aligned and complete from the perspective of participants.. Participants who completed a focus group or interview received a $20 incentive. All sessions were audio recorded and fully transcribed.

RESULTS

Participants

A total of 177 participants contributed to the study. A total of 60 participants contributed the generation step, this included 37 online survey participants and 43 focus group participants. In the structuring session, 26 participants completed sort and rank activities. In the interpretation step, a total of 71 participants contributed to a focus group or key informant interview. Youth had an average age of 17 (SD=2.25), adults had an average age of 43 (SD=12.9). There were 50% adults over age 21, adult professionals included 24% health professionals, 22% clinical researchers, 12% educators and 2% attorneys. Table 1 provides demographic information of our participants.

Step 2: Generation

A total of 311 statements were produced during the generation step of data collection. Refining the statement list led to removal of duplicate statements (n=18), merging similar statements (n=65). The final list of brainstorming statements included 229 unique aspects of cyberbullying.

Step 3: Structuring

During the sorting procedure, participants sorted the statements into between 4 and 30 groups (Mean=12.9, SD=6.1, median 11). During the rating procedure, the mean item rating was 3.3 (SD=0.5).

Step 4: Representation

The stress value for the fit of the MDS solution to the structuring data was 0.3 for the 9 cluster solution, indicating adequate fit. Overall, the 9 cluster solution was found to represent the best fit for the data after assessing a total of 10 unique cluster solutions, ranging between 2 and 12 clusters. The 9 clusters depicted on the Cyberbullying Concept Map are described in Table 2, the final Concept Map is shown in Figure 1.

Step 5: Interpretation

Concept map

The interpretation step involved reviewing the concept map and discussing participant perceptions of that map. Discussions consistently centered on how to describe cyberbullying as a phenomenon that was perceived as both similar to and distinct from traditional bullying. Common topics of discussion included that many characteristics and motivations for bullying were considered to be similar and sometimes identical for both cyberbullying and traditional bullying. However, participants felt strongly that there were unique aspects to cyberbullying including novel methods or situations in which bullying could arise, as well as providing new tools for bullying perpetrators. For example, one unique aspect of cyberbullying noted by participants was that cyberbullying situations could arise from innocuous comments online taken out of context, or jokes that then go too far, and that these messages can be virally spread such that they then represent bullying. As an example, one adolescent described how compliments

posted online can be twisted to become "backlash compliments, like oh your hair looks *great*." In these scenarios, the initial communication may not have been unwanted or aggressively hurtful, but that the situation could devolve into bullying due to the format of online communication.

Another area in which participants noted unique aspects of cyberbullying were how the online environment provides tools so that a target of bullying can "turn the tables" to become a perpetrator. One quote described, "cause when you're in person you can see the physical build of the person and if they're bigger than you, you don't usually want to pick a fight with them. But on the internet, it's just a screen in front of you with a username and they're all the same that way." This quote describes participants' views of how a target of bullying can achieve power by using a "screen in front of you" to bully his/her perpetrator. Participants frequently discussed their perceptions of heightened fluidity of role of perpetrator and target in cyberbullying situations.

The interconnectedness of traditional in-person bullying and cyberbullying was also a common topic. One example quote described, "Umm so the people I know that, or the people that I've known that have been cyberbullied usually they're the targets from like bullying at school and they go and try to pass the pain on the internet to someone else, so it's kind of like a circle going around like that cause they can't like, they're not like, the smaller guy can't beat up the bigger guy, so he goes on the internet and destroys him on the internet, and the bigger guy comes back and destroys the little guy at school, so it's just like a circle between the two."

Conceptual model

The conceptual model is included as Figure 2. Key aspects of the conceptual model include the overlap in bullying perpetrators and targets, which include clusters 1 and 9 from the concept map. Key characteristics of bullying perpetrators nominated by participants included bullying as "a way to deal with insecurities," and a key characteristic of bullying targets was nominated was "afraid to go back to school." Within the circle describing bullying targets were specific characteristics that were nominated as denoting particular risk for bullying, these included being of racial or sexual minority groups. Some shared characteristics of both perpetrators and targets included "depression risk."

The conceptual model also included two overlapping boxes with the larger describing characteristics of the bullying experience, these included descriptors such as disrespectful, mean and aggressive. Overlapping this box was a smaller box representing unique characteristic of cyberbullying, such as "hides behind screen." Similarly, a larger box described bullying techniques, which included false information, public shaming or belittling. Overlapping this box was a smaller box representing techniques that were specific to cyberbullying, including "displaying negative images," "covering with false names," and "virtual clique." Nestled within this box was a smaller box in which specific examples of cyberbullying cases were described, these included "photo sharing without consent."

The construct describing consequences to bullying perpetrator and targets was a shared construct, in which no specific differences between cyberbullying and traditional bullying were noted by participants during the interpretation phase.

One area of discussions in which there was a lack of consensus was whether the concept map or conceptual model appropriately represented the role of bystanders. One quote from a

youth was "I feel like this entire thing is just focused on the bully and the victim and not just, it's just on them, and not the bystanders." However, other youth discussed viewing cluster 4 on the concept map as adequately representing the role of bystanders.

DISCUSSION

This study used a concept mapping approach to gain insights and perspectives from stakeholders towards a concept map and an evidence-based conceptual model of cyberbullying. During the brainstorming step, stakeholders generated a diverse and expansive list of statements describing cyberbullying. The sorting and ranking procedures yielded a robust concept map of nine clusters that comprise characteristics of people involved, actions, and consequences that define bullying and cyberbullying. Through our concept mapping process we utilized stakeholder insights to develop a conceptual model that illustrates areas in which cyberbullying is similar to and unique from traditional bullying. This conceptual model represents participant's perception of cyberbullying and suggests that cyberbullying can best be understood within the context of all bullying behaviors, yet with recognition of the unique challenges it presents. Based on findings in this study, we propose a definition of cyberbullying to be: *Bullying behaviors which take place online or using technology, which can include verbal or relational bullying or threats of physical harm. Cyberbullying includes similar tactics as other bullying behaviors as well as unique approaches such as viral repetition or widespread sharing of messages.* However, an important finding from our study is the need to integrate cyberbullying as part of a shared, understood and uniform definition of bullying as a whole.

A first notable finding is the key areas of overlap between cyberbullying and traditional bullying include characteristics of individuals involved. Our participants described similar

characteristics of both bullying perpetrators and targets applied to both to traditional and cyberbullying, including describing bullying as a way to address insecurities. Participants emphasized the fluidity of roles between perpetrator and targets for both cyberbullying and bullying. Participants noted that an adolescent's ability to engage in cyberbullying would not be limited by physical or social power, thus, cyberbullying may augment the fluidity of roles between perpetrator and target. This fluidity is supported by Olweus' descriptions of "the bullying circle" in which targets may become perpetrators (and vice versa) depending on situations and circumstances.[21] The CDC definition of bullying describes that bullying behaviors involve an actual or perceived power imbalance. In our study findings, the fluidity in roles of perpetrator and target does not seem to represent a shift in the actual power of the individual, but could represent power derived from the tool that is used to bully: the internet.

Another area of similarly between cyberbullying and traditional bullying was that the consequences of both cyberbullying and traditional bullying were described in a single construct in the interpretation diagram. This single construct implies that our diverse stakeholders, including educators, legal experts, health professions and teens themselves perceive that significant and similar negative consequences result from both cyberbullying and traditional bullying approaches.

A second critical finding is the areas in which stakeholders elucidated their perceptions of differences between cyberbullying and traditional bullying. These included characteristics of the bullying experience, with distinguishing factors including the capacity for anonymity by "hiding behind screens" in cyberbullying. The role of anonymity in cyberbullying has been noted in previous studies.[2] However, traditional bullying is not without the capacity for anonymous actions, including sending threatening notes anonymously or damaging property secretly. Even

so, the perceptions of participants about anonymous bullying via the internet was a topic of concern and alarm for many participants.

Finally, the concept map and accompanying conceptual model serve as data-driven visual representations of the complexity of bullying. This complexity is illustrated in our concept map, and includes shared characteristics among perpetrators and targets, a variety of tools and approaches to consider, and negative consequences for both actors. Our findings support that there is a need for research that considers mechanisms or processes that can explain how an individual may have differences in their bullying experiences and consequences depending on the context of that bullying event or situation. A "person by situation by context" interaction has been applied to research in other areas, and the recent National Academic of Science, Engineering and Medicine report[22] supports integration of these frameworks into research on bullying. Our findings provide a conceptual model to understand an individual's journey through these experiences, but further work is needed to understand how context plays a role in determining outcomes of a bullying experience.

There are several limitations to the current work which should be considered. Traditional concept mapping methodology provides guidelines for small numbers of participants at each stage. In order to provide additional depth to this process, we included a larger number of participants than is typically involved in concept mapping to more fully represent the various stakeholders who are involved in cyberbullying. However, the majority of data collection was focused in one geographic location. Because we used a purposeful sample, our study participants are not generalizable and may have had similar perspectives. Our study participants were limited in racial/ethnic diversity, which also affects the generalizability of our findings. Our study focused cyberbullying applied to adolescents; we did not specifically target or include

cyberbullying as applied to college students or young adults. Further work should investigate whether findings may generalize to young adult age groups, in which cyberbullying has been shown to be common.[23,24]

Despite these limitations, our study has important implications in illustrating the key factors that define cyberbullying from the perspectives of stakeholders. The conceptual model developed in this project illustrates what key factors have been internalized by stakeholders both through direct experience and through exposure to sources such as schools, media and patients. The arrangement of concepts in our conceptual model suggests that cyberbullying cannot be considered a distinct entity from bullying, though stakeholders perceive that there are unique aspects of cyberbullying that support it as more than just another bullying context. While the uniform definition of bullying was created to apply to bullying across all types and contexts, our study illustrates that there is still a strong public perception that cyberbullying presents distinct opportunities and challenges compared to traditional constructs of bullying. In order to unify efforts to prevent and intervene with bullying, as well as to measure and assess it over time, future work must address these stakeholder perceptions. While the CDC definition may not have been created to be used for practice and policy, it may be used that way by educators or policy workers in search of a usable definition. In order to promote acceptance and use of the uniform definition of bullying among stakeholders, it is possible that the uniform definition would benefit from evaluation for the context of cyberbullying, or consider adding language to clarify its application to cyberbullying. Our findings suggest that clarifications to the uniform definition may include acknowledgement that power imbalance may be created by tools such as the internet rather than solely as a pre-existing condition. In order to crate a uniform defintiion to be used by educators, policy makers and researchers in the realms of both traditional bullying and

cyberbullying, it is important to ensure consistency in interpretation and application of this definition across these stakeholder groups.

Implications for criminal justice policy and practice include providing clarity and consistency in language when measuring bullying and in policies that address bullying. Assessment tools may need to clarify whether questions about bullying behaviors include cyberbullying, and use consistent terms and language to ensure response are consistent across populations and over time. Further, most states currently have separate policies for addressing bullying and cyberbullying, which may contribute to public perceptions that these represent separate entities. Implications for health providers include understanding that assessments for bullying need to address both traditional and cyberbullying, and acknowledging that experiencing both is common and consequential. Fortunately, newer studies suggest that some interventions designed to address cyberbullying also effect bullying,[25,26] further illustrating the strong connection in these behaviors.

In conclusion, findings support that cyberbullying best understood in the broader context of bullying, but that stakeholder perceptions about the uniqueness of cyberbullying are strong. Bullying presents a complex set of behaviors within roles that may be fluid, and leading to negative consequences for both perpetrators and targets. Findings may be applied towards achieving greater consistency in our definitions, assessments and policies regarding bullying, and working towards a shared understanding of key concepts in bullying with stakeholders who are in the field addressing bullying as part of their everyday jobs.

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Table 1. Demographics	**Step 1: Brainstorming *Focus groups***	**Step 1: Brainstorming *Surveys***	**Step 2: Sort and rank**	**Step 3: Interpretation**	**TOTAL**
Number of participants	43	37	26	71	177
Gender					
Female	34 (79%)	32 (86%)	17 (65%)	39 (55%)	122 (69%)
Male	8 (19%)	5 (14%)	8 (31%)	32 (45%)	53 (30%)
Unknown	1 (2%)	0 (0%)	1 (4%)	0 (0%)	2 (1%)
Age					
%Adults over age 21	5 (12%)	35 (95%)	19 (73%)	29 (41%)	88 (50%)
%Youth age 21 and under	21 (49%)	0 (0%)	6 (23%)	37 (52%)	54 (36%)
% Age unknown	17 (40%)	2 (5%)	1 (4%)	5 (7%)	25 (14%)
Mean age					
Race					
Black/African American	3 (7%)	2 (5%)	2 (8%)	5 (7%)	12 (7%)
Asian/Pacific Islander	1 (2%)	8 (22%)	2 (8%)	11 (15%)	22 (12%)
Caucasian	31 (72%)	25 (68%)	20 (77%)	45 (63%)	121 (68%)
Hispanic/Latino	2 (5%)	1 (3%)	1 (4%)	3 (4%)	7 (4%)
Native American	3 (7%)	0 (0%)	0	4 (6%)	7 (4%)
Mixed Race	1 (2%)	0 (0%)	0	3 (4%)	4 (2%)
Other/Unknown	2 (5%)	1 (3%)	1 (4%)	0 (0%)	4 (2%)
Role					
Student	22 (51%)	1 (3%)	5 (19%)	26 (43%)	54 (32%)
Health Professional	13 (30%)	8 (22%)	1 (4%)	15 (25%)	37 (24%)
Educator/Teacher	3 (7%)	1 (3%)	5 (19%)	0 (0%)	9 (6%)

Administrator/Librarian	0 (0%)	9 (24%)	0 (0%)	0 (0%)	9 (6%)
Researcher	0 (0%)	13 (35%)	6 (23%)	17 (28%)	36 (22%)
Social Worker	0 (0%)	2 (5%)	0 (0%)	1 (2%)	3 (2%)
Counselor	0 (0%)	3 (8%)	1 (4%)	1 (2%)	5 (3%)
Law Professional	0 (0%)	(0%)	3 (12%)	0	3 (2%)
Other/Unknown	5 (12%)	0 (0%)	5 (19%)	1 (2%)	11 (7%)
Parent/Non Parent					
Parent	4 (9%)	0 (0%)	13 (50%)	9 (15%)	26 (16%)
Non Parent	0 (0%)	0 (0%)	11 (42%)	52 (85%)	63 (38%)
Unknown	39 (91%)	37 (100%)	2 (8%)	0 (0%)	78 (47%)

Table 2. Table describing concept map clusters, proposed names and example items

Cluster number	Proposed name	Example items
1	Characteristics of perpetrators and targets	Lack of empathy, afraid to go back to school, "small minds"
2	Consequences for perpetrators and targets	Alienating, crippling, devastating
3	Characteristics of the bullying experience	Aggressive, intent to harm, disrespect, hostile
4 and 8	Bullying techniques	Ostracize, antagonize, "mean girls"
5	Characteristics of the cyberbullying experience	Anonymous, constant, perceived lack of consequences
6	Cyberbullying techniques	Making unwanted posts go viral, excessive messaging
7	Cyberbullying cases	Sending rude messages from someone else's account to get people mad at the person
9	Perceived vulnerabilities	Negative statements about clothes, family situation, intelligence, social status, appearance, sexuality

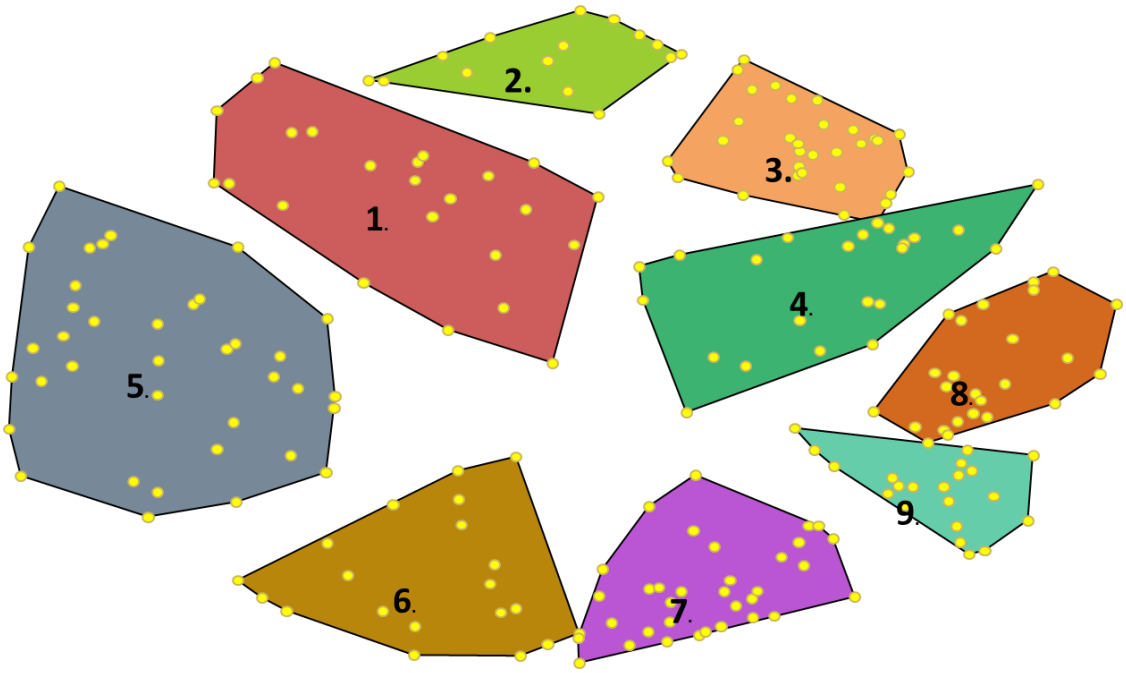

Figure 1: Concept Map

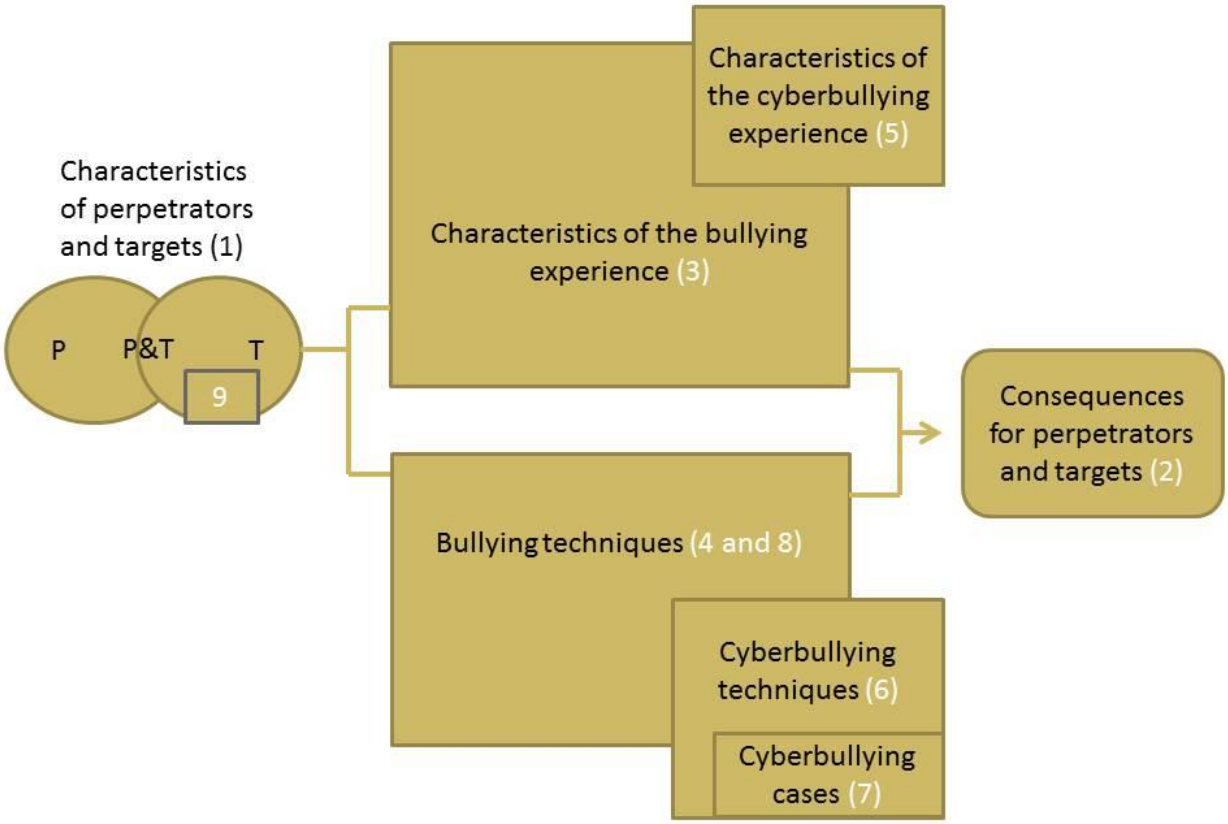

Figure 2. Conceptual model