Relationships between teamwork and suicidal behavior in Juvenile detention facilities using Bayesian networks

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Cogent Social Sciences (2019), 5: 1652984
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Abstract: This study examines the importance of teamwork among correctional officers within juvenile detention facilities and its relation to preventing suicides among youth. The analysis is done using Probabilistic Structural Equations Models implemented within Bayesian Network (PSEM) conducted using BayesiaLab software. PSEM are used to find possible relationships among the different variables involved in this study and to learn more about the importance of teamwork and how it can help prevent suicides. Youth who are incarcerated are more likely to contemplate suicide due to isolation within the facilities, which could lead to changes in negative behavior. This behavior needs to be monitored and communicated among correctional officers in order to save lives. The results indicated that teamwork and communication are important deterrents to suicide prevention. Results show that the strongest the communication and teamwork among correctional officers, the less youth suicidal behavior.
1. Introduction
One of the leading causes of death in juvenile detention facilities is suicide (Gallagher and Dorbin, 2005; National Alliance Action for Suicide Prevention 2013). Compared to the general U.S. population, the suicide rate is estimated at 21.9 per 100,000 youths in juvenile facilities than 7% among youth aged 15 to 19 years in the general population (Teplin, Stokes, McCoy, Abram, & Byck, 2015). Youths who are isolated and confined for long periods are more prone to suicide or suicidal thoughts. Various factors can influence incarcerated youth on making the decision to end their lives, which include mental health disorders, such as depression, anxiety and/or various forms of abuse such as sexual abuse (Bhatta, Jefferis & Kavadas, 2014; Abram et al., 2008). External factors of the juvenile detention facility that can impact suicide include overcrowding, fear of safety and solitary confinement (Abram et al., 2014).

Correctional youth officers are faced with the duty to manage institutions by enforcing safety and security (Sarkar & Ray, 2017). The goal is to prevent violence. Therefore, the importance of communication and teamwork becomes essential for correctional youth officers (Bergner, 1997). The working relationship between officers and youth is important to achieving rehabilitation. Officers have the duty to communicate and monitor the behaviors of youth (Epperson, Thompson, Lurigio, & Kim, 2017). Communication among youth and fellow staff within the institutions can help create a working and non-violent environment. Youth correctional officers and staff play a vital role in the lives of incarcerated youth, especially because they are the only adults they have constant access to.

Youths detained in juvenile facilities are more likely to contemplate suicide due to the confinement of being away from family and friends (Abram et al., 2008). The stress and vulnerability of juveniles being incarcerated can pose serious risks. Therefore, once juveniles are admitted into juvenile hall, they undergo various screenings such as mental health questionnaires to ensure if they need special services or need to undergo suicide watch (Gallagher & Dobrin, 2005; Scott, Underwood, & Lamis, 2015). Minors who are depressive and at-risk receive more supervision than other minors (Hayes, 2005). However, changes in behavior need to be shared with other staff members to ensure the safety of the minors, staff and facilities. Communication among staff members can improve the level of teamwork with juvenile facilities. Juvenile correctional officers need to share information with mental health providers and vice versa in order to deal with incarcerated youths who have suicidal tendencies. Various studies suggest preventive measures on suicide (Gould, Greenberg, Velting, & Shaffer, 2003; Skowyra & Cocozza, 2007; Stanley & Brown, 2008, 2012). However, the literature lacks an approach on the importance of teamwork using Bayesian models. Therefore, this paper will explore the importance of teamwork and its relation to preventing suicides using Bayesian networks. Bayesian Networks provides a tool, Probabilistic Structural Equations Models, that can, based on data, provide a deep understanding of the problem preference structure and directly generate recommendations for prioritized actions and policies. The hypothesis in this study is that if there is a strong network of communication and teamwork among youth correctional officers, there will be a less likelihood of preventing suicide. This study focuses on the perceptions of correctional officers toward suicide prevention.

1.1. The importance of teamwork and correctional work
Teamwork is an effort among individuals working together to achieve a common goal (McEwan, Ruissen, Eys, Zumbo, & Beauchamp, 2017). In juvenile detention facilities, correctional officers are expected to work as a team and communicate any information that may threaten the safety and
security of the institutions (Wright, 2000). This is due to the fact that juveniles can become suicidal at any given time. Juveniles need to be monitored upon entry into the system, after a family visit, or experiencing bullying by other inmates (Correct Care, 2012). Youth correctional officers need to develop working relationships with juveniles in order for them to share personal information that may be bothering them. Youth can rely on sharing information with officers and staff since they are in proximity and if the staff demonstrate caring attitudes (Haller, Sanci, Patton, & Sawyer, 2007). Cramer, Wechsler, Miller, and Yenne (2017) suggest that correctional officers’ attitudes on how they interact with inmates can significantly influence inmates’ decisions on committing suicide.

Mackenzie, Cartwright, Beck, and Borrill (2015) found probation staff should address suicidal behavior to community offenders compassionately with the proper training to recognize the suicidal tendencies. They used a thematic analysis on 13 qualitative interviews with probation staff in England and were able to understand how staff have dealt with suicidal individuals. They found that communication was particularly important among staff and offenders. Staff who communicate the behaviors about offenders to other staff members were helpful in deterring suicidal behavior. In addition, staff noted that offenders that were willing to communicate their problems to staff were less likely to commit suicide than offenders who were quiet. Training was another important component for probationary staff to understand the procedures on how to deal with suicidal offenders.

In another qualitative study, Marzano, Ciclitira, and Adler (2012) conducted 20 interviews with prisoners in England who had engaged in self-harm and found they perceived staff attitudes toward these incidents were negative and non-supportive. These attitudes can increase prisoners’ feelings of low self-worth and could increase their possibilities in engaging in more harm toward themselves. Prisoners indicated that staff demonstrated a non-caring attitude or were not trying to understand the reasons behind the self-inflicted harm. Staff negative attitudes can stem from their levels of training and interactions with inmates. Inmates suggested that they are interested in engaging with staff who are easy to talk to and whom they can trust. Staff who are able to address inmates’ issues instead of disregarding them or being indifferent to their situation was indicated as the factor in helping to decrease self-harm.

### 1.2. Suicide

Various factors can lead juveniles to consider and attempt suicide. Bhatta, Jefferis & Kavadas et al. (2014) observed four negative life experiences among youth such as sexual abuse, homelessness, running away and substance abuse in a survey of 3,156 adolescents in an Ohio juvenile facility from 2003 and 2007. They conducted a logistic regression analysis found that youths who experienced sexual abuse were more likely to consider and attempt suicide. Female youths who experienced sexual abuse were more likely than male youth to consider and attempt suicide. In addition, youths who experienced all four negative life experiences were 8 times more likely to have attempted suicide versus youths who did not endure these experiences. Therefore, knowing the factors that lead youths to consider and attempt suicide can help correctional officers in putting together behavioral and treatment plans to help youths rehabilitate. This study doesn’t observe youth responses but does consider youth correctional officers’ responses to the perceptions of juvenile facilities.

Other studies have also found that sexual abuse affects contemplation of suicide by youths. Esposito and Clum (2002) found youths who lack social support and who are unable to deal with their problems are more likely to contemplate suicide. Their study was conducted on a sample of 200 incarcerated youth using a survey and conducting hierarchical regression analysis. In comparing sexual abuse to physical abuse, sexual abuse was a strong predictor of attempted suicide. Youths who are able to perceive social support from correctional youth officers and staff members were more likely to discuss their problems in order to receive treatment. Understanding the factors
that lead youths to contemplate suicide can help correctional staff in their treatment and interactions with inmates.

Hawton, Linsell, Adeniji, Sariaslan, and Fazel (2014) suggested that prison inmates who inflict self-harm are more likely to result in suicide. They studied two types of prison populations in England and Wales from 2004–2009 on inmates who inflicted self-harm compared to a group that did not. They used the Bayesian approach to compare both groups and found that female prisoners were more than likely than male prisoners to inflict self-harm. They found that other factors such as length of sentence and the severity of the crime committed and being younger than age 20 attributed to self-harm. These individuals were more likely to commit suicide. Bayesian clustering of individuals conducting self-harm shows that suicide can occur, and if not managed properly it can affect other inmates and the institution (Hawton et al., 2014). Their study was limited to just England and Wales and did not observe United States juvenile detention facilities. In addition, this study focuses on the impact of teamwork versus self-harm.

2. Methodology

According to the aforementioned studies, it is clear that various factors can lead juveniles to consider and attempt suicide. The study adds value to the juvenile corrections literature by observing what variables are associated with reducing suicide from a probabilistic viewpoint. The purpose is to observe if the relationship of correctional officers’ teamwork can help reduce suicide in juvenile correction facilities in the United States. Bayesian Networks are a powerful tool to represent relationships among different factors and very useful for diagnosis and prediction. One of the advantages of the Bayesian Networks that will help us with the study objectives is the belief updating, which means the systematic update all the priors based on a new evidence. This is a powerful tool to predict the effectiveness of the factors of interest like teamwork, communication and training.

In order to perform the Bayesian Network analysis, the study drew upon the Performance-Based Standards project from the Council of Juvenile Correctional Administrators. This study relied on the Staff Climate Survey, which was one of the surveys administered within the Performance-Based Standards project (PbS). It was administered to a random sample of 30 officers per facility. There are 162 facilities that participated (Council of Juvenile Correctional Administrators (CJCA), 2010). The data includes records from April 2004 to April 2010. In order to have access to the dataset, PbS approved the use of the data for this study through a strict application process. In addition, an application was sent to the Institutional Review Board (IRB) for access to existing data banks, archives and documents to use for this study.

2.1. Staff survey

The staff survey was conducted by the Performance-Based Standards project to obtain staff’s opinions about safety and security with juvenile facilities. In addition, the survey was implemented to understand the programs and policies. The purpose of the survey, also referred to as the Staff Climate Survey, was to understand the conditions of juvenile facilities and to provide remedies to enhance the safety of the institutions.

2.2. Bayesian networks

Bayesian Networks, also called Probabilistic networks, are a type of representation and reasoning under uncertainty systems. They are a compact and efficient representation of a domain as a directed acyclic graph summarizing a factorized joint probability distribution of the random variables in the domain.

A Bayesian Network consists of:

(1) A directed acyclic graph, in which each node represents a variable of the domain.
(2) A set of random variables in the domain of interest. X1, X2, ..., Xn
(3) A set of parents P(xi) for each variable Xi which is the set of variables Xj such that there is a link from Xj to Xi.

(4) A set of conditional probability distributions for each random variable given the set of parents of that variables, i.e. Pr(Xi|P(Xi))

Also based on the chain rule, we can write the joint probability distribution of all variables in the domain as follows:

\[
P(X_1, X_2, \ldots, X_n) = \prod_{i=1}^{n} P(X_i | X_i \text{Pa}(X_i))
\]

Using the conditional independence relationships given by the graph, the joint probability distribution of the Bayesian network can be written as:

\[
P(X_1, X_2, \ldots, X_n) = \prod_{i=1}^{n} P(X_i | Pa(X_i))
\]

Example: This example was presented by the psycho-criminology section of Vancouver police department (Hadadian, n.d.). The department received a call from someone who claimed that he found a dead student in his apartment. Autopsy results would not be released by next week, but for some reason the police needed to find out the cause of death earlier. Therefore, the department tried to build a Bayesian network to find out the probability that he committed a suicide, or he died of a natural cause. The Bayesian network structure and the associated probabilities are given in Figure 1.

\[
P(X_1, X_2, \ldots, X_n) = \prod_{i=1}^{n} P(X_i | Pa(X_i))
\]
Descriptions of the different variables in the Bayesian networks are as follows:

- **Break Up (BU):** Recent breaking up with somebody he was in a relationship with
- **Relative Lost (RL):** Recent loss of any close family member
- **Financial Problem (FNP):** Living financially extremely tight for the last few weeks
- **Work/Study Pressure (PRS):** Being burdened with a lot of paperwork or assignments
- **No Friends & Family (NFF):** Not having any family member or friend in the city
- **Insomnia (INS):** Having recent insomnia
- **Serious Illness (SIL):** Suffering from a serious illness
- **Depression (DEP):** Suffering from depression
- **Emotional Shock (ES):** Experiencing an emotional shock in the last few weeks
- **Chronic Stress (CST):** Experiencing chronic stress
- **Prior Stroke (PS):** Having a history of any type of stroke
- **Suicide (SU):** Committing suicide

2.3. Data
In the dataset, there are 48 columns, i.e. 48 variables, which exclude Minority Staff and Minority Gender. There are 65,535 rows in the data. The following rating, or variables, are present in the data:

- 8 rating on Staff Safety
- 6 rating on Staff Training
- 16 ratings on Living Working Conditions/Climate
- 6 ratings on Programs
- 11 ratings on Staff and Youth Relations.
- One rating from Minority staff, and one rating for Staff gender.

2.4. Study
We used Probabilistic Structural Equations Modeling (PSEM), which is based on machine-learned Bayesian networks. PSEM provides an efficient alternative to Structural Equation Model (SEM), which is mainly used in market research. SEM is a statistical technique for testing and estimating causal relations using a combination of statistical data and qualitative causal assumptions. This definition of SEM was formally defined by Pearl and Russell (2000). Relationships in PSEM are probabilistic in contrary to SEM where relationships are deterministic.

Using SEM requires a lot of steps that are time consuming, unlike PSEMs that use automatic learning for generating a model and in a fashion time. Because using machine learning available algorithms help in this regard, we will be using BayesiaLab for two reasons. First, it has a fast-implemented algorithm to automatically discover the model structure, and, second, it can be used as a tool for deeper analysis of the model.

PSME, which is implemented under BayesiaLab, allowed testing and identifying causal relationships among the variables involved in the study. This was done using qualitative causal assumptions and available statistical data. The objective was to identify possible hidden concepts that we called factors based on correlation between the variables, called manifests. The reason for doing this is that factors are more stable variables than the manifests themselves. To accomplish the objective, we created the structure of the Bayesian network that represents the strongest possible relationships that exist between the variables involved in the study.
To do so we used the unsupervised learning algorithm implemented under BayesianLab. The obtained Bayesian network consisting of 50 variables associated to the column of the data set Staff Survey is given in Figure 1.

This BN is a compact representation of the 49 dimensions of the joint probability distribution of the data. As we can see from the BN, Minority staff (50th variable) is independent of all other variables, we choose to ignore it. We can now use this BN in many ways, we can first read all marginal probabilities and condition probabilities for each of the variables in the structure. Then, we can query the BN, in other words, we set evidence and we read new probabilities conditional on this new entered evidence (Silvera & Smail, 2016).

As an example, we can read the marginal probabilities of Suicide Prevention and Teamwork variables, and also the probability of Suicide Prevention conditioned by Teamwork variable. Based on our analysis, 27% of participants considered teamwork poor, while around 33% considered it fair and good. Only 7% considered teamwork as excellent in the facilities. Facilities may work on improving the percentage of teamwork to be good and also excellent (See Table 1).

In conducting our analysis, we also did a marginal probability distribution on suicide prevention. We found that 45% considered that the suicide prevention in the facilities is good, while 11% think it is poor. Around 23% think that is excellent. In other terms, the majority of youth correctional officers, more than 67%, think that suicide prevention is good and above (See Table 2).

The Bayesian network also revealed the relationships among the variables. Each relationship, i.e. each link, is quantified by a conditional probability table that measures the strength of the relationship. In this analysis, we looked at the relationship between suicide prevention and teamwork. The highest probabilities that were associated to good and excellent Suicide Prevention are related to good and excellent Teamwork. As an example, the probability that Suicide Prevention is good given the information that teamwork is also good is above 61%. This indicates a strong relationship between Teamwork and Suicide Prevention however, on the contrary when teamwork is poor suicide is high (See Table 3).

When we set Teamwork equal to excellent, that represents the highest rating for the Teamwork variable. We immediately obtain the conditional probability distribution of Suicide Prevention as follows (See Table 4):

### Table 1. Marginal probability distribution of the Teamwork variable

| Teamwork     | Probability |
|--------------|-------------|
| Teamwork = Poor | 27.20%      |
| Teamwork = Fair | 31.85%      |
| Teamwork = Good  | 33.24%      |
| Teamwork = Excellent | 07.71%      |

### Table 2. Marginal probability distribution of the Suicide Prevention variable

| Suicide Prevention | Probability |
|--------------------|-------------|
| Suicide Prevention = Poor | 11.46%      |
| Suicide Prevention = Fair   | 20.69%      |
| Suicide Prevention = Good    | 45.10%      |
| Suicide Prevention = Excellent | 22.75%      |
By Comparing Tables 2 and 4, we notice that the probability of Suicide Prevention = Excellent went up from 23% to 83% given the information that the Teamwork is excellent. 23% which is the percentage of people who think Suicide Prevention in the facilities is Excellent without any prior on the Teamwork, or without taking teamwork into consideration. Again, this shows the strong relationship between Teamwork and Suicide Prevention.

We can do much better by examining the properties of the BN using the strength of the probabilistic relationships between the variables. The strength is related to the concept of Mutual Information, the Kullback-Leibler Divergence (K-L Divergence). Basically, this measures the information that two variables share, i.e. to what extend knowing one of these variables reduces our uncertainty about the other one.

The information about the strength between the manifest variables can then be used to for purposes of variable clustering. The resulting variable clusters BN is given in Figure 2, where the different colors refer to the sets of variables according to the strength of their relationships.

In this case, BayesiaLab has identified 12 variable clusters, and each node is color-coded according to its cluster membership. As our next step toward building the PSEM, we will introduce these new identified factors into the existing structure and also estimated their probabilistic relationships with the manifest variables. This means we created a new node for each factor, creating 12 new variables in the BN.

The BayesiaLab clustering variables process generated the 12 clusters associated to each of the factors as seen from Figure 3.

We can see how different factors are related to the manifest and also how the factors are related to each other. Most important, we can see the strength of the relationships among variables in each cluster. We can also visualize these 12 clusters by the Node force, in other words, we can see the variables that are most important for each factor (See Figure 4).

This helps to understand which variables out of the 12 clusters were deemed important via the Bayesian Network Cluster analysis (See Figure 5).

| Table 3. Conditional probability distribution of Suicide Prevention given Teamwork |
|---------------------------------------------------------------|
| Suicide Prevention | Poor (%) | Fair (%) | Good (%) | Excellent (%) |
| Teamwork = Poor     | 31.491   | 28.835   | 32.249   | 7.425        |
| Teamwork = Fair     | 7.269    | 32.731   | 46.944   | 13.056       |
| Teamwork = Good     | 1.420    | 6.744    | 61.224   | 30.612       |
| Teamwork = Excellent| 1.338    | 2.294    | 13.384   | 82.983       |

| Table 4. Conditional probability distribution of Suicide Prevention given Teamwork = Excellent |
|---------------------------------------------------------------------------------------------|
| Suicide Prevention = Poor | 1.34 |
| Suicide Prevention = Fair | 2.29 |
| Suicide Prevention = Good | 13.38 |
| Suicide Prevention = Excellent | 82.98 |
2.5. Analysis of the factors

We are interested in Factor 1 and Factor 2, as they represent the manifest we are trying to understand, the relationships in general. This helps to understanding how things are changing and the effect on other variables.

We renamed the factors according to the nature of the variables associated. We named Factor 1 as “Relationships” and Factor 2 as “Suicidal Behavior.”

In order to understand the variables behind these factors, we defined each of the variables in Table 5. Each of the variables, such as improving facilities, increasing in training, decreasing overcrowding and increasing safety equipment are related to Factor 1 relationships. Anything that was answered in the staff climate survey as other was related to making facilities safer.

A second-factor analysis was created for suicidal behavior and the factors associated with it in juvenile detention facilities (See Figure 6 and Figure 7).

The manifest variables associated with suicidal behavior rest on teamwork, communication, suicide prevention programs, youth orientation and the basic necessity and living and working conditions based on food (See Table 6).
We can look at the way the variables are related to the states of each factor.

The contribution of each of the variables in Factor 1 and Factor 2 can be seen in Figures 8 and 9 respectively.

Factor 1 has two states “Good” and “Poor.” If we fix Factor 1 to state “1”, Poor, it will change probability of all variables, as an example $P(\text{increase\_training} = \text{False}|\text{Factor 1} = \text{Poor}) = 53\%$. In other words, given that Factor 1 is in state “Poor,” the variable Increase Training has a probability of 53% of being in state “False.” This means that for respondents who have been assigned to “Poor,” it is likely that they would rate the Increase Training attribute very low as well. Hence, the importance of increase training to change overall value of factor 1 to Good and not Poor becomes apparent.

Factor 2 has 4 states, “Poor,” “Fair,” “Good,” and “Excellent.” Giving the Factor 2 the state, Good, will decrease the probability of Suicide Prevention to 0.48% (from 11%). We also notice, in this factor, the importance of teamwork as it explains about 47% of the relationship within the factor, followed by communication, then Suicide Prevention.

We conducted a total effects analysis on both Factor 1 (Relationships) and Factor 2 (Suicidal Behavior). By looking at the total effect analysis, we notice that for Factor 1, Increase NA is the most important factor while Increase Crowding is the least important one (Less Overcrowding). Other factors that are related to the safety of the institution were deemed important and helpful for youth correctional officers’ relationships in keeping institutions safe (See Figure 10).
For the total effects analysis for Factor 2 on suicidal behavior, Teamwork is the most important variable, and Food is the less important one (See Figure 11).

3. Discussion
The analysis support our hypothesis that if there is a strong network of communication and teamwork among youth correctional officers, there will be a less likelihood of preventing suicide.
Teamwork and communication go hand-in-hand. Youth correctional officers who communicate and share information with others on the status of youths’ behaviors can help prevent suicide. The communication factor supports Mackenzie et al. (2015) finding that communication among staff can deter suicidal behavior. Youths need someone they can talk to, especially in an incarcerated environment. Staff can play a vital role in the lives of incarcerated youth by listening to them and engaging in conversations.
The study also determined relationships are among the important factors that affect youths’ wellbeing in the facilities. This study supports Esposito and Clum (2002) that if youth receive social support from correctional officers to help them discuss their problems, they are less likely to contemplate suicide. Cultivating working relationships within juvenile correctional facilities is necessary to help juveniles receive rehabilitation. In addition, improving facilities by increasing training, decreasing overcrowding, increasing safety equipment and making facilities safer were the only factors associated with relationships between youths and facilities staff. The analysis also showed the importance of increasing training to improve relationships within the facilities.

One of the goals of correctional officers is to reduce youth violence, in particular preventing suicide. This study provides support that any information that may threaten the safety and security of juvenile institutions should be shared by team members (Wright, 2000).

This will ensure suicide prevention and helping keeping youths safe. In addition, per the study by Marzano et al. (2012), correctional officers who display engaging attitudes toward minors can

### Table 6. Different manifest variables associated to Cluster 2

| Factor 2 variables | Description |
|--------------------|-------------|
| Teamwork           | Programs: The manner in which various facility areas (i.e. direct care, clinical, education, administration and health) work as a team in developing and following through on youths’ treatment/service plans is: |
| Communication      | Living and Working Conditions: Communications between all areas (i.e. direct care, clinical, education, administration, health, food service and maintenance) at this location are: |
| Suicide Prevention | Programs: How would you rate training, daily communications and follow through at this location regarding suicide prevention |
| Orientation        | Programs: How would you rate the orientation of youths when they first arrive? |
| Food               | Living and Working Conditions: The food is good. |
discourage youth from self-harming behavior. Self-harming incidents can lead to suicide. Therefore, correctional officers who are able to talk to youths about their problems could provide the initial support for them to consider staying alive.

Figure 9. Contribution of each manifest variable in factor 2: associated with the arcs.

Figure 10. Total effect analysis of manifest variables in Factor 1.
4. Policy implications

A high percentage of youth who are admitted into juvenile detention facilities have mental health issues and are at risk for suicide. Leone, Lockwood, and Gagnon (2017) suggest mental health screenings within the first 24 h that youths are admitted into facilities and offering counseling and therapy to at-risk individuals. In a survey of clinical directors in youth detention facilities, they found that one of the needs was to hire more correctional staff and to provide training. Managing negative youth behavior is a challenge to correctional staff; therefore, they recommended the use of Positive Behavioral Intervention and Supports (PBIS). It is a three-level behavioral system (universal, secondary and tertiary) where youths on a universal level are met with communication interpersonal skills. The secondary approach provides group counseling, and on the tertiary level is individual intensive counseling (Leone et al., 2017).

PBIS is a relatively new behavioral management system mostly done in education systems, and recently has become implemented in juvenile facilities. Leone et al. (2017) stressed the importance of communication between officers and juveniles’ expectations of their behaviors. In addition, they stressed the importance of officers to reiterate the guidelines to behaviors since the majority of the youth population has some sort of mental illness. Youth who are under these conditions need consistent guidelines and structure, along with appropriate training of officers and the ability to create behavioral plans to meet the needs of at-risk juveniles. Implementing rehabilitative measures can help youth from harming themselves or others.

Training is an important aspect of helping correctional officers learn new information and techniques on how to deal with youths. According to Powers (2018) training such as trauma-informed safety helps correctional staff learn how to communicate with youths to understand the emotional triggers they have. This would help officers understand the youth’s trauma history and improve their interactions. In addition, this information is shared with other staff members so they can better interact with youths. An aspect of training can also include creating standard guidelines for teamwork collaboration among correctional officers. This could be elaborated on with future research to determine if following teamwork guidelines creates a significant impact on helping youths. Individuals who enter juvenile correctional facilities have endured some type of trauma which resulted them being in confinement (Kubiak, Covington, & Hiller, 2017). Correctional officers who can help understand what these traumas are can help reduce the likelihood of youth aggression that stems from violence and suicide.
Correctional facilities can be a new venue for youth to endure even more traumatic experience such as being bullied or sexually assaulted. Youth may be reluctant to share this type of information with correctional officers (Kubiak et al., 2017). Therefore, the communication between correctional officers and youth is essential to maintain the safety of the facilities. In addition, Fallot and Harris (2006) suggest there are five pillars correctional officers should consider when talking with youth: safety, trustworthiness, choice, collaboration and empowerment. For example, enforcing safety practices within the institution and fostering a sense of trust and choosing to collaborate with other officers and work with minors may help them feel empowered. These are the tools that are needed for youths to rehabilitate in hopes to live a life without having the need to resort to suicide.

5. Conclusion
Suicide is one of the leading causes for death in juvenile detention facilities. This study has demonstrated that teamwork and communication are significant factors in helping to prevent suicide. Training is an important component for correctional officers in understanding how to deal with suicidal youths. Communication among officers with youths and officers with staff members on the behaviors of youths creates important linkages to help improve behavior. Officers that display professional positive attitudes could lessen the need for youth to inflict harm. This study suggests that appropriate communication is necessary and needed between officers and minors to lessen the need for youth to contemplate suicide. An open line of communication between officers and minors can also reduce negative behavior among minors and help with the ease of the work shift for officers. Minors who feel comfortable with staff can be more inclined to follow institutional rules and respect authority.

One of the first things that incarcerated youth may contemplate in juvenile facilities is to end their lives by suicide. If they figure out the easiest way out to end their lives they may seek to do so. However, if correctional staff can create an open dialogue with minors this may help youths think twice before they react negatively. Correctional staff must be willing to undergo the necessary training and learn the methods to communicate effectively. This can be done by developing working relationships among correctional officers with the purpose to improve the lives of youth.
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