**The Efficacy of Personalized Normative Feedback as an Intervention Method for College Students During the COVID-19 Pandemic**

Research Proposal

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**Abstract**

As universities reopen, they will be required to follow strict guidelines to guarantee students’ safety. The proposed research seeks to evaluate the efficacy of a personalized normative feedback intervention at reducing dangerous behaviors displayed by students during the COVID-19 pandemic. We will create and disseminate a survey for the student population measuring perceptions of general student attitudes and behaviors as well as their own behaviors and attitudes towards campus health guidelines. Then, in the first portion of the study, the students who answered the norms documentation survey will be randomized into two groups, with one group receiving PNF one week after the initial survey and the other serving as a control. One month later, both groups will complete a follow-up survey assessing the same behaviors as the first, recording discrepancies between the groups, and comparing the percent of each group adjudicated for their unhealthy behaviors. We expect the students in the PNF intervention group, as compared to the control group, will report less risky attitudes and behaviors and to have been adjudicated less often for violating campus health policies. The second portion will provide adjudicated students with a more-detailed PNF intervention and follow up with them 1-month post PNF. We expect these students to report less risky attitudes and behaviors and conform better to campus health protocols than they did prior to the PNF intervention.

**Key Term**

Personalized Normative Feedback- “A brief intervention designed to correct misperceptions regarding the prevalence of problematic behavior by showing individuals engaging in such behaviors that their own behavior is atypical with respect to actual norms”[[1]](#footnote-1).

**Introduction**

As California colleges gradually reopen, they will be obligated follow safety guidelines implemented by the state’s Department of Public Health[[2]](#footnote-2) and the Center for Disease Control and Prevention[[3]](#footnote-3). These guidelines require social distancing, constant sanitation of public spaces, wearing a face covering in public, and limited student gatherings. The deterrent currently employed by most colleges is the threat of citation, suspension or, in extreme cases, expulsion[[4]](#footnote-4). Although this may deter some, there is evidence that officials will meet more resistance by telling students what to do rather than showing them what good they would do if they followed the actions of the greater population[[5]](#footnote-5)’[[6]](#footnote-6). Although this study will ultimately rely on university citations to form a subject pool, the end goal is a way to ease the worries of reopening universities[[7]](#footnote-7) by allowing students to remain on campus while lowering the risk of spreading the virus. This study utilizes two foundational psychosocial theories: Social Identity Theory and Social Norms Theory. Social Identity Theory asserts that social groups are important to the formation of one’s self-esteem, thus we will shift our views to gain the desired group’s acceptance[[8]](#footnote-8), and Social Norms Theory states that our behavior will be affected by our misperceptions towards how our peers think and act, most importantly our over-estimation of our peers’ involvement in unhealthy activities[[9]](#footnote-9). Using these two theories, researchers have developed a new and effective method of preventing students’ partaking in such behaviors called personalized normative feedback, or PNF, which is the primary intervention method utilized in this study.

**Related Work and Motivation**

This work was largely inspired by the work of the author’s mentor, Dr. LaBrie, and his research team in developing personalized normative feedback as an intervention method. While providing foundational works that solidified the PNF’s efficacy as a standalone intervention in the past, his team’s efforts are currently focused on creating a mobile game app that effectively introduces PNF to students—using data derived from surveys of their peers—to convince subjects that their actions are abnormal compared to the larger population. Over the course of several years, LaBrie has discovered that ‘gamified PNF’[[10]](#footnote-10), combined with randomized feedback towards subjects’ responses[[11]](#footnote-11), can make web-based PNF much more effective than simply providing students with raw data that they are more likely to resist or ignore.

Additionally, LaBrie has made the connection between parents’ perceived norms and their own leniency towards their children’s unhealthy behaviors, finding that parents are more likely to encourage drinking in their own homes if they believe that other parents are allowing their kids to and adding to the overall misperceptions of young adults’ drinking habits[[12]](#footnote-12). While this study’s focus will not include ‘gamification’, there will be an implementation of randomization by dispersing pandemic-related questions among other unconnected topics in the surveys used, hopefully lowering any reactance by students hesitant to provide accurate answers for the survey. By studying COVID-19-related behaviors, this proposal provides a method of extending LaBrie and others’ work on PNF beyond the niche of “typical” risky behaviors displayed by college students.

**Participants**

The surveys will be provided for all students returning at the beginning of the semester. The number of students allowed to live on campus is currently limited, but the desired sample is around 1,000 students. All 1,200 students will receive an initial survey one week prior to the campus housing’s reopening. They will then be split into two equal groups (n = 500); one will receive personalized normative feedback for their answers one week after answering the survey and the other will act as a control group with delayed PNF (at least one month after the survey).

**Methods**

The first phase of this study will be centered around creating a survey for students that measures their views of the pandemic, as well as the current safety guidelines implemented by the university. Perceived attitudes towards five main safety guidelines will be measured: (1) wearing a mask, (2) social distancing, (3) limiting group gatherings, (4) increased washing and disinfecting hands, and (5) preventing students from entering each others’ dorm rooms. Along with these concerns, we will ask students on a Likert-style scale[[13]](#footnote-13) of one (unconcerned) to seven (highly concerned) about how concerned they are about being infected with COVID-19, infecting their peers, and infecting university staff. To be as representative of the student body as possible, this survey would likely be presented to all returning students at the beginning of the nearest upcoming semester with an incentive of $10 per completed survey. Since mandatory educational modules are already required for students, this 10-15-minute survey could simply be added on at the end of the modules. Questions would be structured so that students provide their own opinions on a specific item, and directly after answering they will be given a question asking them to predict what percentage of students agree or disagree with their claim. An example of this format is as follows: students could be asked the question “how often have you attended a party with ten or more people in the past month?”, and after answering they would be given the question “how many times have other students attended a party with ten or more people in the past month?”. According to Social Norms Theory, students will likely overestimate how much others attend these parties (perhaps predicting that their peers attended five parties in the past month), while reporting relatively low numbers themselves (likely reporting having attended zero or one party themselves).

The second phase is the analysis of survey results and the subsequent application of personalized normative feedback for the experimental group, two weeks after the survey’s deadline. The control group will not be provided PNF and will be told that their results have been delayed. It is expected that students will follow the trends displayed by previous surveys of Californians[[14]](#footnote-14)’[[15]](#footnote-15) through a majority’s following of safety guidelines on campus and general concern for others’ safety while on campus. One week after the experimental group has received PNF, both groups will be provided a second survey, once again offering the incentive of $10 for completion. The experimental and control group’s average responses between the two surveys will be compared. Although it is expected that all students will show concern for others’ safety, the experimental group is expected to have even higher general adherence to COVID-mitigating rules than the control, with lower adjudication rates and lower reports of risky activities. After the second survey, the control group will receive personalized normative feedback identical to the experimental group and both groups will be debriefed on the data collected in the study and what it will be used for.

The final phase will be using specialized personalized normative feedback on students adjudicated for COVID-specific risky behaviors. These could include refusing to wear a mask, attending large gatherings, or refusing to socially distance. This group will be given a similar but targeted survey as those above and their responses will be recorded and compared to the larger population’s average responses. Similar to the control group, adjudicated students will likely have misconceptions towards the larger population’s attitudes regarding safety regulations. After receiving PNF, students will be asked to complete a follow-up survey asking them the frequency of their own behaviors as well as their perceptions of their peers’ activities.

**Expected Results**

Assuming the survey results meet expectations, the initial goal for the intervention would be empirical proof that the experimental group’s risky behaviors are significantly lowered by the PNF treatment. They should report going out less, wearing a face covering more consistently, social distancing whenever possible, washing and sanitizing their hands more, and not entering other students’ dorms. There is hope that their concern levels would mirror those of the larger Californian population (Stremikis, K, 2020), but in the case that they initially do not, we would expect that students’ concern levels would rise significantly post-intervention.

When PNF is provided to the adjudicated student population, it is expected that the population will respond to the intervention in the same way that we expect the experimental group to: post-PNF, adjudicated students are expected to report lower dangerous activities and greater concern for the general population’s well-being. Further proof would hopefully be seen in a decrease in students written up along with a decrease in overall COVID-19 cases among the student population.

**Conclusion**

This pandemic provides a unique opportunity for researchers to test the bounds of well-established intervention methods[[16]](#footnote-16)’[[17]](#footnote-17) (in this case PNF) beyond drug and alcohol abuse, the common focus in the field. By using a university that will actively enforce its safety guidelines, many of the prerequisites for this study have already been met. All that is left for this study is understanding students’ reactions to these guidelines and using data from these reactions to form an intervention. If successful, the benefits from this study are beneficial to both the PNF research body and the university: students would be compelled to follow guidelines more stringently, resulting in a reduction in the number of COVID-19 cases on campus.

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**Budget**

|  |  |  |
| --- | --- | --- |
| **Article** | **Explanation** | **Cost** |
| Research Assistant | Will help compile and analyze data, form survey questions, distribute surveys through online medium and deliver PNF to experimental groups | $12.50/hr, ~120 hrs  $1,500 |
| Survey 1 Compensation | $10 earned per survey response, goal of 1000 students responding | $10,000 |
| Survey 2 Compensation | $10 earned per survey response, goal of 1000 students responding | $10,000 |
| Miscellaneous Funds | These will be used in the case that the research assistant is required for longer than the budgeted hours or any other unforeseen expenses. These will be returned if not used by the end of the study. | $3,000 |

**FINAL COST: $24,500**

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