

PARTY Evaluation

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BACKGROUND

Since the inception of the PARTY program in south Vancouver Island in 2003, there has been approximately 19,400 students participate in the injury prevention program. In response to the VIHA Board of Directors' request for an evaluation of the program, an analysis was conducted by the trauma team studying the effectiveness of the PARTY program. Purposive sampling was used to recruit two high schools for the study once full approval was obtained from the VIHA ethics review committee and the relevant school boards. Participation was voluntary. 550 questionnaires were administered between the two sites 12-24 months after students had completed the PARTY program. Data entry was conducted using a US Centre for Disease Control software package and then analyzed using the statistical software package – SPSS. A comparison between the intervention site (PARTY graduates) and control site (non-PARTY students) was performed. Further analyses by gender and type of driver licence were also conducted.

PURPOSE

1. Evaluate the effectiveness of the PARTY program in South Vancouver Island – are we getting across the message?
2. Information sharing with our internal (to VIHA) and external key stakeholders on key findings.
3. Based on results, seek long-term funding opportunities.

HIGHLIGHTS

- An overall Index of Risk Behaviour reveals PARTY graduates have a significantly higher compliance with safe behaviours than non-Party students.
- PARTY has the greatest impact on decreasing the use of cell phones while driving, decreasing the number of occasions of driving after midnight and reducing the incidence of speeding.
- Overall, females have a significantly higher compliance with safe behaviours than males.
- Male PARTY graduates have a significantly higher compliance with safe behaviours than male non-Party students. Furthermore, PARTY has more of an effect in positively affecting male risk-taking behaviours than on female behaviours.
- There is a high compliance with drivers wearing seatbelts regardless of PARTY participation.
- Once learner drivers graduate to novice drivers, there is a significant deterioration in safe driving behaviours.
- Qualitative analysis revealed the primary reason for not wearing a helmet while biking - “it messes my hair”.

CONCLUSIONS

The PARTY program in the South Island has undergone a rigorous evaluation using both statistical and qualitative analyses. It is clear from the significant findings that the program is effective in getting across the message that can assist in reducing alcohol and risk-taking behaviours in youth. When factoring in gender and participation in PARTY, the results indicate that PARTY is more effective in influencing male youths than females. This is encouraging as results show that male youths have a consistently lower compliance with safe behaviours than female youth.

The evaluation has identified areas in which the program can be improved relating to the use of seat belts and drink-driving behaviours. Of particular concern is the result relating to “have been a passenger with an impaired driver”, whereby 33% of the students who reported that they have been driven by an impaired driver identified the driver as being a family member. It is therefore critical that PARTY continues to be available to youth on Vancouver Island. There is also credibility in considering expanding the messaging to other generations.

NEXT STEPS

- Use results to improve both the content and delivery of the PARTY program.
- Disseminate report to key stakeholders.
- Submit abstract to National Conference on Injury Prevention – Vancouver, BC. November 2009.
- Conduct regression analyses to identify predictors of risk-taking behaviour in youth and interface findings with VIHA’s Population Health and Wellness’ current work on risk behaviours.
- Write a research paper on the evaluation of PARTY and submit to a professional journal – Spring 2009.
- Evaluate the central and north island PARTY program – Fall 2009.
- Continue to collaborate with Population Health and Wellness portfolio on future injury prevention projects enhancing the wellness and safety of Vancouver Island residents.

ACKNOWLEDGEMENTS

The trauma team wishes to acknowledge:

- All the volunteers who make the PARTY program happen...
- Mike Pennock, Liz Walker and Sandy Gillett in VIHA’s Population Health and Wellness portfolio.

Results

DEMOGRAPHICS

- A total of 547 students participated in this study. 250 students were categorized as PARTY graduates (45% of total study), 297 students were categorized as non-PARTY students (55%). 3 questionnaires were missing participation data so were eliminated from further analysis. 51% of participants were males.

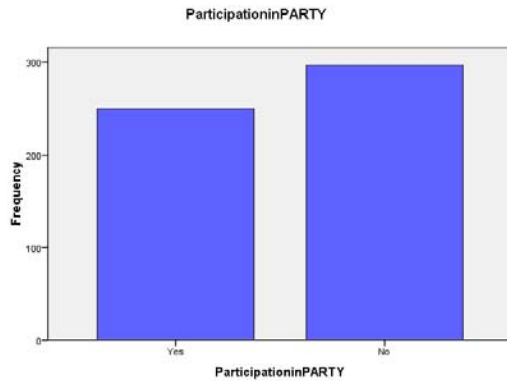


Figure 1. Number of students participating in PARTY evaluation

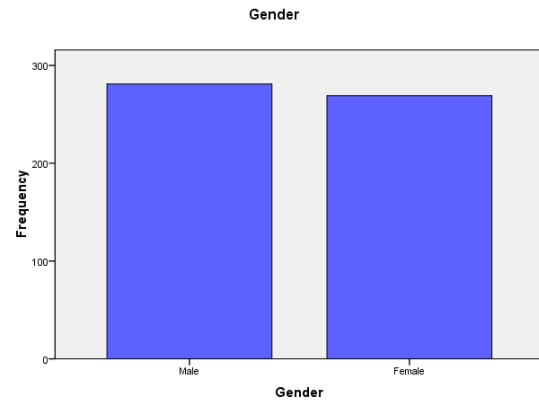


Figure 2. Number of males & females participating in PARTY evaluation

- 62% of PARTY graduates held a current driver's licence (73% learner's; 27% novice). 79% of non-PARTY graduates held a current driver's licence (58% learner's; 42% novice).

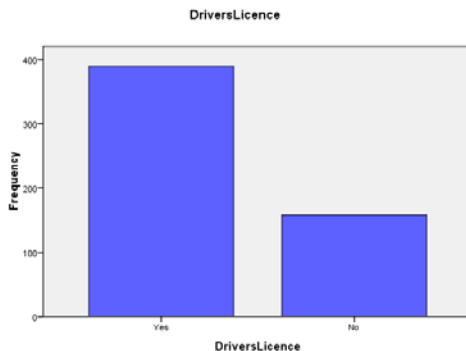


Figure 3. Number of participants in PARTY evaluation holding a driver's licence

DATA QUALITY

- Prior to analysis, variables were examined for accuracy of data entry, missing values and assumptions of normal distribution. In addition, a confounding variable analysis was conducted to identify whether the two groups (control and intervention) differed on any other variable besides whether they had taken PARTY. Results of both data quality and confounding variable analyses revealed non-significant findings and assumptions of normal distribution were met.

RESULTS

1. Comparison of PARTY Graduates with non-Party Students

- Non-PARTY students suffered significantly more snowboarding injuries requiring medical attention from doctor's office or ED than PARTY graduates $\chi^2 = 4.051$, $p = .044$. Translated into an odds ratio, non-PARTY students were 2.3 times more likely to suffer snowboarding injuries requiring medical attention from doctor or ED than PARTY graduates.
- Non-PARTY students suffered significantly more auto injuries requiring medical attention from doctor or ED than PARTY students $\chi^2 = 6.25$, statistically significant at $p < .05$. Translated into an odds ratio, non-PARTY students were 3.7 times more likely to be injured in an auto crash than PARTY graduates.
- Non-PARTY students were more likely to use a cell phone while driving than PARTY graduates, $t = 3.925$, statistically significant at $p = .000$

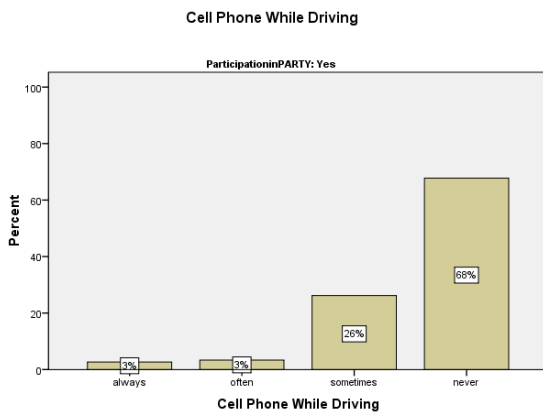


Figure 4. PARTY graduates' results on use of cell phone while driving

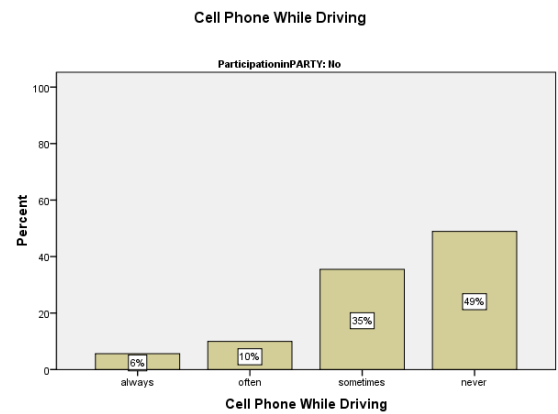


Figure 5. Non-PARTY students' results on use of cell phone while driving

- Non-PARTY students were more likely to speed than PARTY graduates, $t = 5.465$, statistically significant at $p = .000$

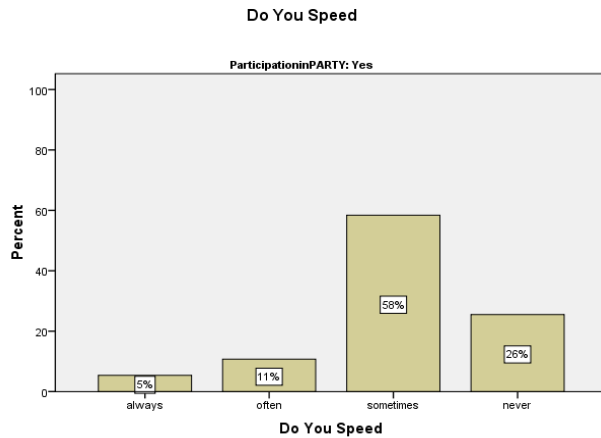


Figure 6. PARTY graduates' results on speeding

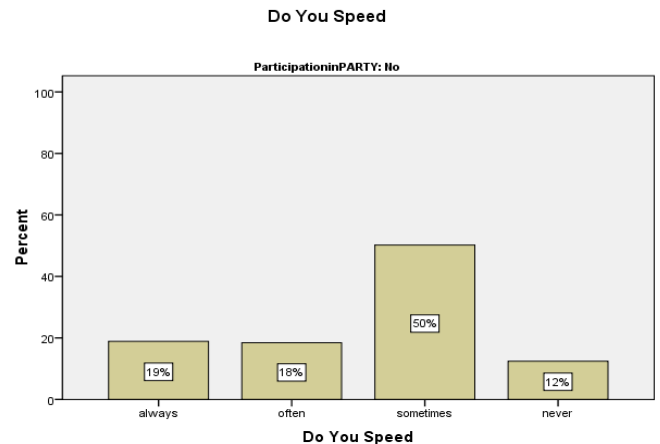


Figure 7. Non-PARTY students' results on speeding

- Non-PARTY students were more likely to drive after midnight than PARTY graduates, $t = 2.654$

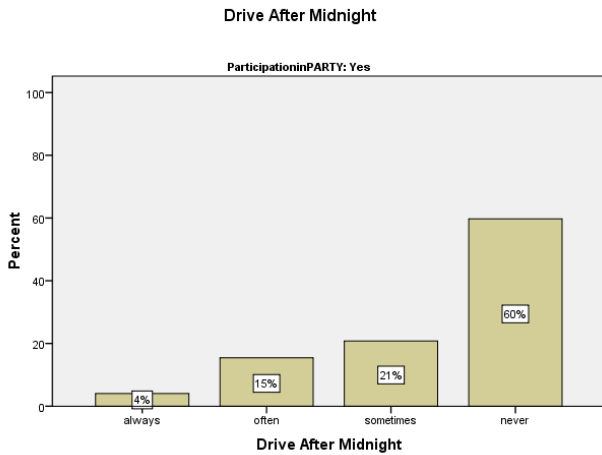


Figure 8. PARTY graduates' results on driving after midnight

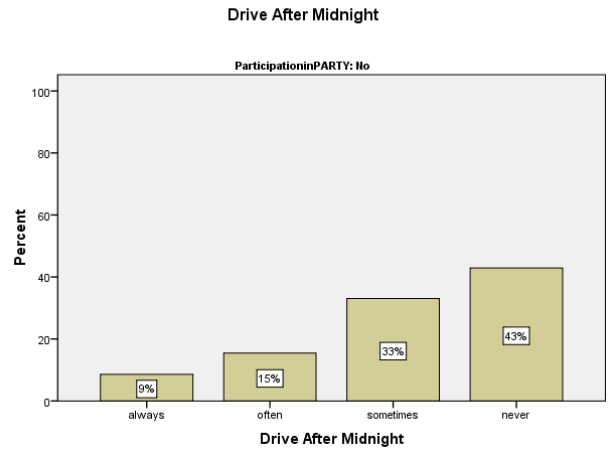


Figure 9. Non-PARTY students' results on driving after midnight

- PARTY graduates had a higher Risk Index of Compliance with Safe Behaviours than non-PARTY students: $t = 3.312$, statistically significant at $p = 0.001$

Risk Behaviours Included in Risk Index: cell phone while driving, speeding, driving after midnight, driver wear seat belt, seatbelt as passenger, helmet while biking, make your passenger wear seatbelt.

- Overall, seatbelt use as a driver was high. However, "ensuring your passenger wears a seatbelt" was poor. The common reasons identified in the qualitative analysis was "I didn't realise I was supposed

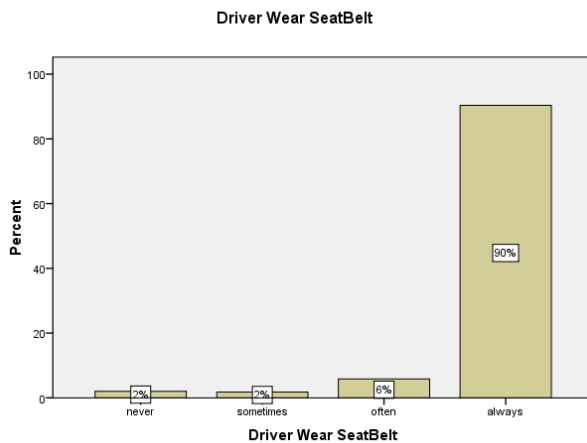


Figure 10. Study participants who wear a seatbelt while driving

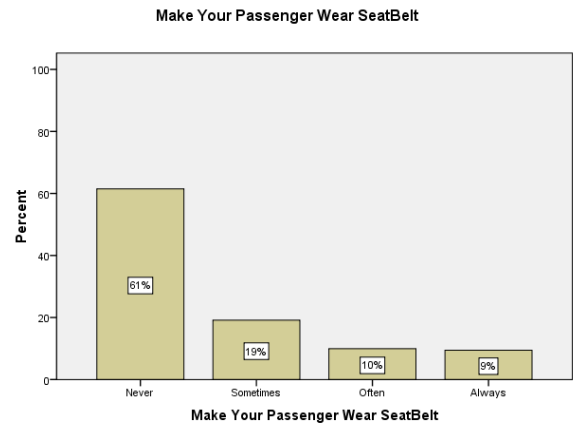


Figure 11. Study participants who ensure their passengers wear a seatbelt

2. Comparison of Male and Female Behaviours by Participation In PARTY

- Females had a higher Risk Index of Compliance with Safe Behaviours than males: $F = 9.34$, statistically significant at $p = .002$
- Males were more likely to use a cell phone while driving than females: $F = 11.82$, statistically significant at $p = .001$
- Males were more likely to speed than females: $F = 12.67$, statistically significant at $p = .000$
- Males were more likely to drive after midnight than females: $F = 13.29$, statistically significant at $p = .000$
- Males were more likely to drive within 2-hours of consuming alcohol than females: $F = 6.090$, statistically significant at $p = .014$
- Females were more likely to wear a seatbelt when driving than males: $F = 13.94$, statistically significant at $p = .000$
- Males had more skateboarding injuries requiring medical treatment from a doctor or ED than females: $F = 14.78$, statistically significant at $p = .000$
- Males had more biking injuries requiring medical treatment from a doctor or ED than females: $F = 13.16$, statistically significant at $p = .000$
- Males were more likely to ensure their passengers wear seatbelts than females: $F = 7.07$, statistically significant at $p = .008$

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3. Comparison of Male PARTY Graduates with Male Non-Party Students

- Non-Party males sustained more autocrash injuries requiring medical treatment from a doctor or ED than PARTY males: $\chi^2 = 5.64$, statistically significant at $p = .018$
- PARTY males had a higher Risk Index of Compliance with Safe Behaviours than non-Party males: $t = 3.006$, statistically significant at $p = .003$
- Non-Party males were more likely to use a cell phone while driving than PARTY males: $t = 2.54$, statistically significant at $p = .012$
- Non-Party males were more likely to speed than PARTY males: $t = 4.313$, statistically significant at $p = .000$
- Non-Party males were more likely to drive after midnight than PARTY males: $t = 2.901$, statistically significant at $p = .004$
- Pragmatics of Quality Improvement vs. Research: Analysis of all remaining variables revealed strong positive trends in favour of PARTY.

4. Comparison of Female PARTY Graduates with Female Non-Party Students

- Non-PARTY females were more likely to drink within 2-hours of consuming alcohol than PARTY females: $\chi^2 = 4.12$, statistically significant at $p = .042$
- Non-Party females were more likely to use a cell phone while driving than PARTY females: $t = 4.27$, statistically significant at $p = .000$
- Non-Party females were more likely to speed than PARTY females: $t = 4.26$, statistically significant at $p = .000$

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5. Comparison of Risk-Taking Behaviours between Learner and Novice Drivers

- Learner drivers had a higher Risk Index of Compliance with Safe Behaviours than Novice drivers: $F = 77.2$, statistically significant at $p = .000$
- Novice drivers were more likely to use a cell phone while driving than Learner drivers: $F = 155.75$, statistically significant at $p = .000$
- Novice drivers were more likely to speed than Learner drivers: $F = 28.8$, statistically significant at $p = .000$
- Novice drivers were more likely to drive after midnight than Learner drivers: $F = 301.98$, statistically significant at $p = .000$
- Novice drivers were more likely to drive within 2-hours of consuming alcohol than Learner drivers: $F = 32.2$, statistically significant at $p = .000$
- Learner drivers were more likely to wear a seatbelt while driving than Novice drivers: $F = 7.4$, statistically significant at $p = .007$
- Novice drivers were more likely to ride with an impaired driver than Learner drivers: $F = 4.4$, statistically significant at $p = .036$

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OPPORTUNITIES TO IMPROVE

1. Clarify messaging relating to responsibility for passengers wearing seatbelts.
2. Add quotes from surveys relating to reasons for not wearing helmets and seatbelts.
3. Consider delivery of content with respect to gender differences and learner vs. novice licence differences.
4. Consult with all PARTY service providers (paramedics, police, coroner, trauma team) to improve messaging on drinking and driving both for students and families.

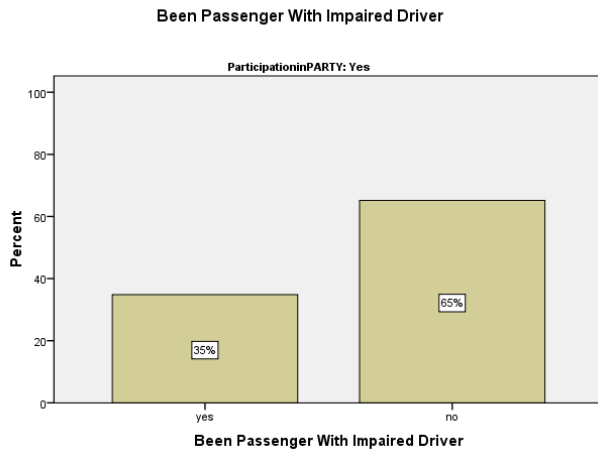


Figure 12. Number of PARTY graduates who been a passenger with an impaired driver

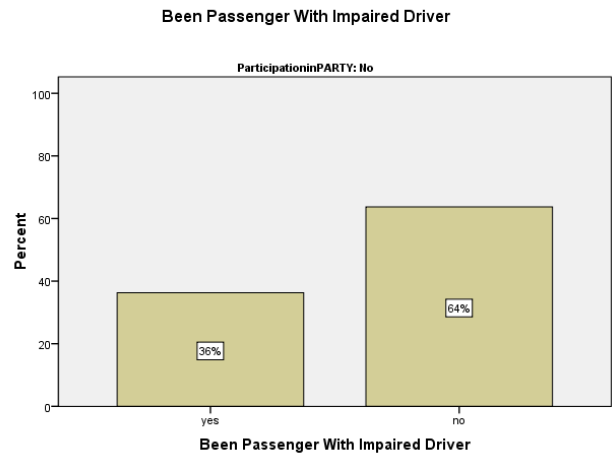


Figure 13. Number of Non-PARTY students who been a passenger with an impaired driver

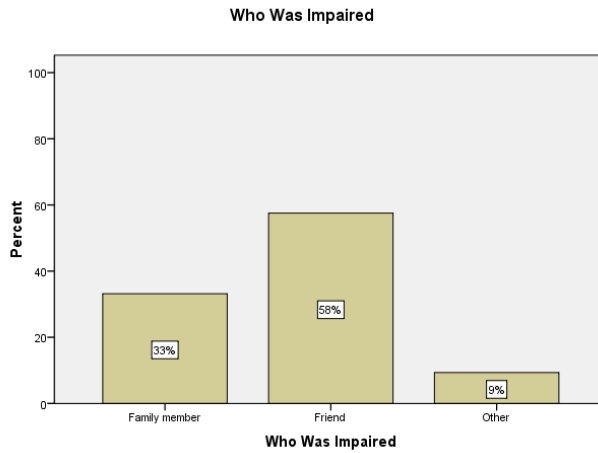


Figure 14. Identification of who was driving impaired