Original Paper

Government Policy on Transport Options Directed towards the Advanced Age

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<u>***Octogenarian Group***</u>

Aim of this research is to evaluate continued driving by people of an advanced age.

This work is part of the LiLAC Cohort Study presently in New Zealand: - View of Government policy on transport options for older people.

Abstract

Background: *Response was noteworthy by both gender and cultural grouping New Zealand Māori and non-Māori to the question of transport options for older people.*

Method: *Respondents were asked to rate government policy along a scale of very unhappy-to- very happy. These results were then analysed using ordinal logistic regression, Mann Whitney U test and descriptive analysis.*

Results: *Participants totalled 931 with 421 New Zealand Māori and 510 New Zealand Māori non-Māori.*

<u>*New Zealand Māori:*</u> *Within the three age categories (83-86, 87-89 & 90-93) it was New Zealand Māori males aged between 87-89 years followed by 83-86 years who indicated that they were predominantly happy or neither happy/unhappy with government policy. Males aged between 90-93 years were also very happy or had a marginal view of the legislation. For New Zealand Māori females instead a comparable number of those aged between 83-86 years view indicated that they either very happy to being neither happy or unhappy with the policy. Whereas for the next age grouping (87-89 years) their opinion reduced slightly to those who were either happy or neither happy/unhappy. A*

position similarly held by New Zealand Māori females aged 90 years plus.

New Zealand non-Māori: Both New Zealand non-Māori male and female results demonstrated a similar pattern with them being mainly happy with the legislation, then neither happy or unhappy to being very happy.

Conclusion: Generally it could be said that results from both New Zealand Māori and non-Māori were relatively impartial towards government transport legislation sitting either on the fence or just slightly above.

1. Introduction

The research conducted in the LiLAC study question JB8 was investigating how happy advanced aged people were with the current government policy on transport options made available for their age group. Measurement will be made examining the strength and direction of correlation in regards to advanced aged New Zealand Māori and New Zealand Non-Māori on a five-point scale ranging from very unhappy (1) to very happy (5) (Dineen & Blakesley, 1973; Lund, 1985; and Lund & Lund, 2018; refer to Table 1).

Table 1.

Very unhappy	Mainly unhappy	Neither unhappy or happy	Mainly happy	Very happy

New Zealand Māori

As a consequence of older New Zealand Māori population distribution the research group has been categorised into three age groupings (refer to Table 2).

Table 2.

83 – 86 years
87 – 89 years
90 – 93 years

Slightly more New Zealand Māori females (141) than males (118) were seen to have given their opinion about the current governments transport policy for older people.

A significant amount of New Zealand Māori male population within the entire age span were either happy or very happy with the government legislation. However, with that there was also another notable current running alongside that neither supported nor was opposed to the transport policy for older people.

New Zealand Māori male aged between the years 83-85 and 86-89 view on the current government transport legislation covered the entire range of option. Although most within these two age groupings indicated that they were either happy or stood in the middle approach where they were neither happy or

unhappy with the policy. However, another significant group of New Zealand Māori males aged between 86-89 years also expressed displeasure with transport legislation (unhappy). Of those aged 90 years plus they followed a similar

approach. First of all being neither happy or unhappy but they also expressed a more positive view of the current governments transport options (very happy).

A high number of New Zealand Māori females aged between 83-85 years presented similar numbers in those who were neither happy of unhappy, happy or very happy with the current government transport legislation. Whereas New Zealand Māori females of the 86-89-year age group most indicated that they did not have a significant opinion of the legislation with the number shown being neither happy or unhappy with the legislation. Their opinion next feels into the happy and unhappy categories. Finally, New Zealand Māori females aged 90 plus similarly remained in the middle or were happy with transport policy, (refer to Figure 1a & b).
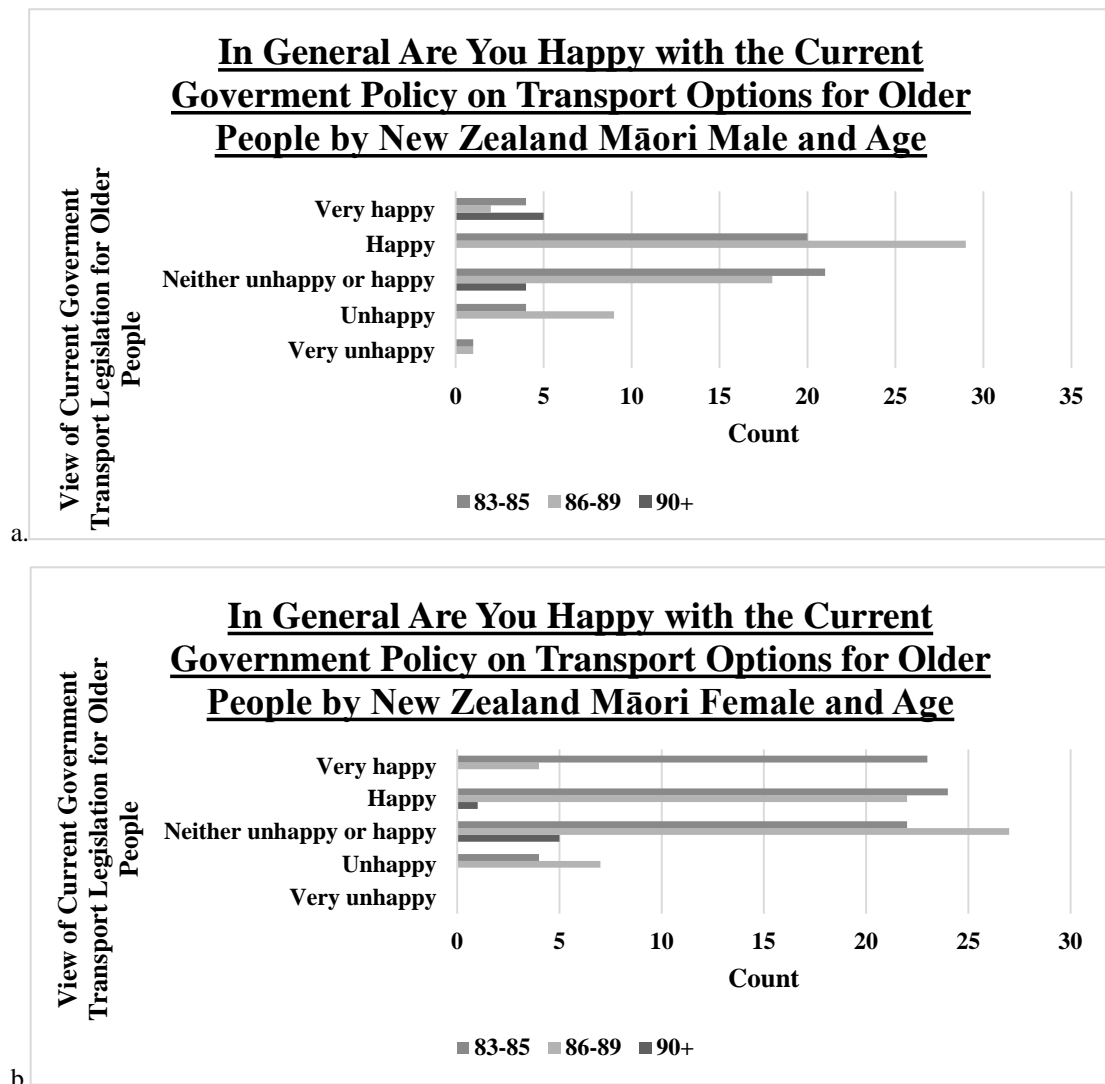

a.

b.

Figure 1.

Parameter Estimates

Similarly, the prediction by gender of how happy New Zealand Māori are with the current government policy on transport options for older people could not be shown with an odds ratio 1.662 (95% CI, 0.533 to 5.270), non-statistically significant Wald $X^2(1) = 0.779$, $p = 0.377$.

The prediction by age of how happy New Zealand Māori are with the current government transport policy for older people could not be shown. Growth in age (group 2) was not associated with an increase in odds ratio of how happy New Zealand Māori are with government policy with an odds ratio of 1.169 (95% CI,0.322 to 3.219), non-statistically significant Wald $X^2(1) = 0.003$, $p = 0.955$ (refer to Table 3).

2. Summary

A cumulative ordinal logistic regression was run to determine how happy New Zealand Māori for gender and age, are with the current government policy on transport options for older people.

The deviance goodness-of-fit test indicated that the model was a good fit to the observed data, $\chi^2(10) = 3.557$, $p > 0.05$. The final model was also not statistically significantly and therefore did not add to the prediction of the dependent variable $X^2(2) = 0.793$, $p > 0.05$. The odds ratio in general of how happy New Zealand Māori males are with the current government policy on transport options for older people was 1.662 (95% CI, 0.533 to 5.270), times that of New Zealand Māori females, Wald $X^2(1) = 0.779$, $p > 0.05$. An increase in age was not associated in odds ratio of how happy New Zealand Māori are with the current government transport policy 1.169 (95% CI,0.322 to 3.219) for older New Zealand Māori Wald $X^2(1) = 0.003$, $p = 0.955$ (refer to Table 3).

Table 3.

Var1_	Var2_	Estimate	Std. Error	Wald	df	Sig	Lower Bound	Upper Bound	Exp_B	Lower	Upper
Threshold	[Very Unhappy = 1]	-3.408	1.086	9.841	1	0.002	-5.538	-1.279	0.033	0.004	0.278
	[Unhappy = 2]	-0.957	0.559	2.933	1	0.087	-2.052	0.138	0.384	0.128	1.148
	[Neither Unhappy No Happy =3]	0.318	0.535	0.353	1	0.553	-0.731	1.367	1.367	0.481	3.924
	[Happy = 4]	1.989	0.635	9.802	1	0.002	0.744	3.235	3.235	2.104	25.406
Location	NZMāori Male	0.516	0.585	0.779	1	0.377	-0.63	1.662	1.662	0.533	5.27
	NZMāori Female	0			0						
	AgeGp 86-89	0.033	0.58	0.003	1	0.955	-1.104	1.169	1.169	0.332	3.219
	AgeGp 90-93	0			0						

JB8 In general, how happy are you with the current government policy on transport options for older people?

Is there a difference between gender and how happy Non-Māori of an advanced age are with the current government policy on transport options for older people? In answer to the question involving solely gender grouping for New Zealand Non-Māori the Mann-Whitney U Test has been used.

One-hundred percent of New Zealand Non-Māori within the LiLAC population grouping answered question JB8 and therefore there were no zero frequencies.

The response from both male and female New Zealand Non-Māori lay somewhat more in the middle to upper line indicating that they were either mainly happy with the legislation or were neither happy or unhappy with the governmental transport policy options for older people (refer to Table 4).

Table 4.

New Zealand Non-Māori	In General Are You Happy with the Government Policy on Transport Options for Older People?					
	Very Unhappy	**Mainly Unhappy**	**Unhappy or Happy**	**Mainly Happy**	**Very Happy**	**Total**
Non-Māori Male	0.58	1.55	**16.5**	16.7	6.21	46.6
Non-Māori Female	0.58	4.07	14.2	22.9	6.99	53.4
Total	1.16	5.62	30.7	39.6	13.2	0.1

Visual Illustration

To be able to carry out the Mann-Whitney U test a judgement needs to be made as to whether the distribution scores for male and female Māori have a similar shape. The illustrated results from question JB8 signify that the distribution scores on how happy New Zealand Non-Māori are with the current government policy on transport options for the advanced aged were not too dissimilar between the genders and therefore indicating that the Mann-Whitney U test may be used.

Initial analysis does indicate that a higher percentage of New Zealand Non-Māori males were both mainly happy (4) and also mainly unhappy (2) with government transport legislation in comparison to New Zealand Non-Māori females   New Zealand Non-Māori females results instead indicated a greater percentage being neither unhappy or happy (3) and also being very happy with government policy (5), (refer to Figure 2).
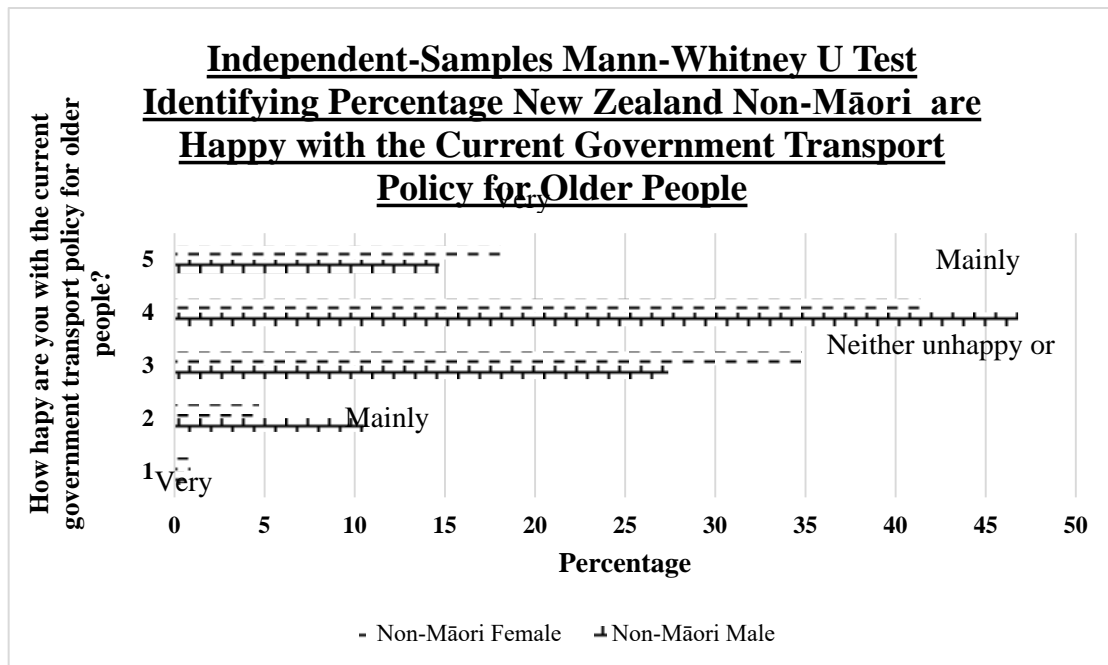
Figure 2.

Mann-Whitney U Test

Table 5.

Standard Error	560.697
Standardized Test Statistic	-1.291
Asymptotic Sig. (2-sided test)	0.197

Mann-Whitney U test was run to determine if there were differences in how happy New Zealand Non-Māori males and females are with the current government transport policy for older people. Median use of public transport score between New Zealand Māori was not statistically significantly different between New Zealand Māori males (0.00) and New Zealand Māori females (0.00), $z = -1.291$, $p = 0.197$ (Refer to Table 5).

References

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