

Figure 1: PRISMA flow diagram.

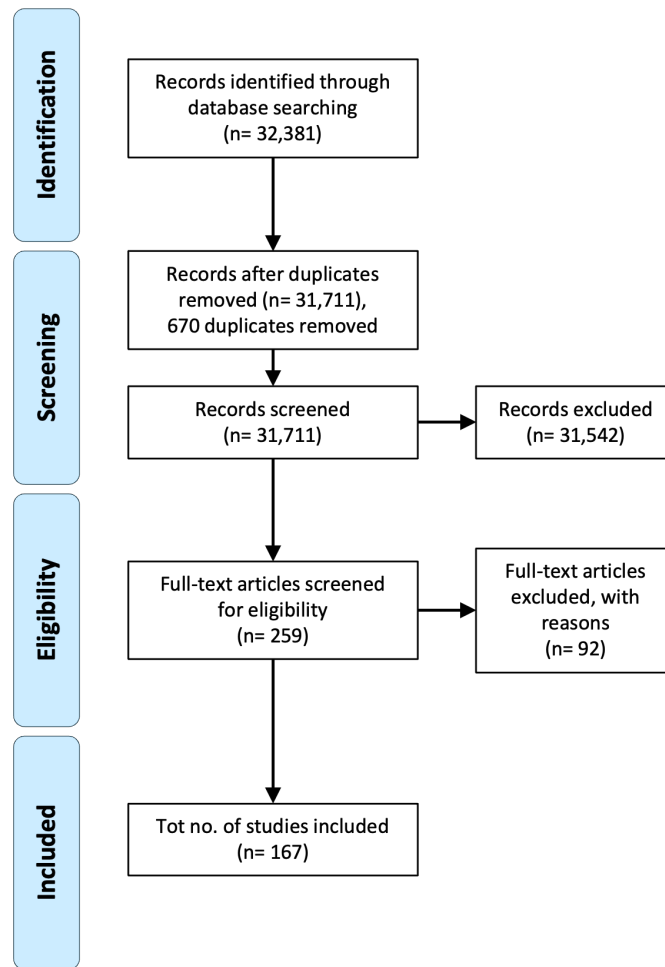


Table 1: Number of grey literature publications by year, ethnic group, population category and broad area of research.

	Theses/dissertations	Governments reports	NGO reports	Research reports
Year of publication				
2011	10 ^{75,76,85,86,90,98,114,136,141,156}	4 ^{16,19,29,33}	1 ⁴⁶	3 ^{60,63,67}
2012	11 ^{69,70,77,78,87,99,108,112,118,157,158}	6 ^{15,20,30,34,42,43}	1 ¹⁰⁰	3 ^{64,116,159}
2013	10 ^{79,88,96,128,142,149,160-163}	6 ^{13,14,21,31,44,45}	2 ^{47,54}	2 ^{65,68}
2014	13 ^{71-73,80,83,93,101,143,148,164-167}	3 ^{10,22,23}	1 ⁴⁸	2 ^{66,168}
2015	11 ^{84,94,110,119,123,124,137-139,154,169}	4 ^{24-26,35}	0	0
2016	7 ^{81,95,102,107,134,151,170}	2 ^{12,38}	0	0
2017	13 ^{82,122,125,150,152,171-178}	4 ^{11,18,39,40}	0	0
2018	4 ^{74,146,179,180}	2 ^{32,181}	1 ⁵⁵	2 ^{61,62}
2019	9 ^{89,91,103,104,119,127,128,153,182}	1 ²⁷	6 ^{49-53,56}	0
2020	12 ^{92,113,115,131,144,145,147,155,183-186}	5 ^{17,28,36,37,41}	3 ⁵⁷⁻⁵⁹	3 ^{105,117,187}
Ethnic group				
Chinese	41 ^{69,71,79,81,90,91,96,98,103,104,115,129-131,136-138,141,145,148,150,152,154-157,162-167,169,171,174,176,178,183,185,186}	13 ^{11,12,15,17,18,20,22-24,26,27,45,181}	4 ^{54,55,57,100}	6 ^{66-68,105,116,117}
Indian	16 ^{69,78,98,102,103,110,120,136,150,154,160-162,171,173,180}	6 ^{11,13,15,18,26,181}	5 ^{50-52,57,100}	6 ^{67,68,105,116,159,187}
African	12 ^{69,83,84,102,108,113,119,125,146,149,158,164}	4 ^{10,16,28,181}	1 ⁵²	8 ^{63-65,68,105,159,168,187}
Korean	11 ^{74-76,93-95,136,142,143,152,166}	5 ^{11,17,20,23,24}	3 ^{54,56,57}	2 ^{105,116}
South Asian	11 ^{70,80,107,120,134,147,151,153,170,172,182}	5 ^{12,17,26,28,42}	1 ⁵⁸	1 ⁶⁶

Table 1 (continued): Number of grey literature publications by year, ethnic group, population category and broad area of research.

	Theses/dissertations	Governments reports	NGO reports	Research reports
Southeast Asian	4 ^{69,130,162,172}	5 ^{17,26,27,42,181}	1 ¹⁰⁰	1 ¹¹⁶
Other Asian	7 ^{69,153,161,162,165,170,172}	10 ^{10-13,15,18,26,27,42,181}	0	4 ^{67,68,159,187}
Latino	4 ^{69,118,123,124}	3 ^{10,16,181}	3 ^{50,51,53}	1 ⁶⁸
Middle Eastern	1 ⁷²	4 ^{10,16,42,181}	0	3 ^{68,159,187}
Filipino	5 ^{98,102,139,165,175}	1 ¹¹	1 ⁵⁷	1 ¹⁰⁵
Japanese	3 ^{103,142,154}	2 ^{11,20}	1 ⁵⁷	0
Sri Lankan	2 ^{102,103}	1 ¹¹	1 ⁵⁴	0
Muslim	3 ^{14,103,112}	1 ²¹	0	0
Fijian Indian	2 ^{73,99}	0	1 ⁵⁴	1 ¹⁸⁷
East Asian	1 ¹⁸⁰	1 ⁴²	0	0
Malaysian	2 ^{136,166}	0	0	0
Vietnamese	2 ^{154,165}	0	0	0
Sikh	1 ¹⁸⁴	0	0	0
Population category				
Refugee	9 ^{85-89,122,128,144,177}	12 ^{19,22,25,30,31,33-35,37,40,41,43}	4 ^{46-48,51}	4 ^{60-62,116}
Migrant	8 ^{77,82,87,89,101,154,174,179}	8 ^{17,19,28,31,36,37,40,41}	3 ^{49,51,59}	1 ⁶⁶
Women	26 ^{14,69-84,94,108,112,113,122,131,147,175,182}	4 ^{13,25,44,45}	0	1 ¹⁶⁸
Youth	5 ^{95,137,162,165,174}	0	1 ⁴⁸	2 ^{67,68}
Children	6 ^{143,153,161,170-172}	1 ²⁹	0	0

Table 1 (continued): Number of grey literature publications by year, ethnic group, population category and broad area of research.

	Theses/dissertations	Governments reports	NGO reports	Research reports
Parents	3 ^{77,95,143}	0	0	0
Older peoples	5 ^{74,101,139,148,167}	0	1 ⁵⁴	1 ¹¹⁷
LGBTQIA+	2 ^{91,150}	0	0	1 ⁶⁶
Disability	1 ¹⁴³	2 ^{21,29}	0	0
Broad area of research				
Chronic health conditions	11 ^{99,129,146,153,163,169,172,179,180,184,186}	0	0	0
Body composition/diet	14 ^{69-73,120,128,130,145,157,161,170,171,182}	0	0	0
Mental health	23 ^{77,85-96,103,108,110,124,125,141,152,154,165,177}	5 ^{23,24,27,33,37}	4 ^{48,55-57}	1 ⁶¹
Addictions	4 ^{137,138,162,183}	3 ^{17,22,25}	0	1 ¹¹⁶
Reproductive/sexual health	18 ^{69,71,75,78-84,113,114,119,131,149,150}	6 ^{13,19,28,36,44,45}	5 ⁴⁹⁻⁵³	6 ^{63-66,168,187}
Health practice/service provision	21 ^{83,88,96,98,99,101-104,115,118,134,145,155,158,160,163,164,176,180,185}	13 ^{13,14,20,29,31,32,35,38,39,42-45}	2 ^{47,100}	3 ^{62,105,159}
Patient perceptions/service utilisation	11 ^{71,73,92,93,107,114,134,150,156,166,167}	1 ³³	3 ^{47,49,59}	1 ⁶⁵
Settlement experience/identity	12 ^{76,77,90,104,108,122-125,136,136,162,174}	0	2 ^{48,59}	1 ⁶⁶

Table 2: Themes that intersect with acculturation.

	Theses/dissertations	Government reports	NGO reports	Research reports
Acculturation				
Acculturation leads to new value frameworks	73,76,124-127	22,24,25	48	65,75
Acculturation is associated with better health-seeking behaviours	35,76,131	24,27	-	63
Acculturation improves ability to negotiate between plural health knowledges	35,76,134,135,185	-	-	-
Acculturation impacts dietary habits	71,99,128-130,169	35	-	-
“Healthy migrant effect” diminishes over time as acculturation occurs	175	11,12,15,18,40	-	-
The desire to acculturate (e.g., to “fit in”) leads migrants to adopt health-harming behaviours (increased alcohol consumption, gambling)	138	12,17,22,25	-	116
Acculturation can have positive effects (e.g., improved English levels, physical and/or mental health, feelings of safety and/or belonging)	93,112,124,125	35	-	65,66,75
The strength and effectiveness of the welcome given to migrants and/or refugees by service providers impacts their feeling of belonging and speed of acculturation	-	-	46,47	61,75
Acculturation stress				
Acculturation stress leads to health-harming behaviours (e.g., problem gambling)	124,136,138	17,24	-	116
Acculturation stress negatively impacts mental health	89,95,124,136,139	24	55	116
Acculturation stress is significant for migrants shifting from collectivist to individualistic societies	136	-	56	63
Acculturation conflict				
Different rates of acculturation can lead to intergenerational conflict or tension within families	76,88,95,119,140	22,24	49,56	62,75,116

Table 2 (continued): Themes that intersect with acculturation.

	Theses/dissertations	Government reports	NGO reports	Research reports
Acculturation impacts women and young people more with respect to traditional practices	76,77,112,113,139	22,24,25	49	75
Acculturation conflict is often experienced between children and parents (children adopt values and lifestyles of new country while parents expect them to uphold traditional cultural values)	76,88,95,119	22,24	-	62,75
Acculturation may feel like being “stuck between two worlds” as migrants try to hold onto traditional culture but adapt to New Zealand society	76,77,90,112,113,119,122,123,125,139	22,25	48	62,65

Table 3: Summary of recommendations for health service improvements.

Area of focus	Cultural responsiveness						Ethnic minority workforce			Holistic approach to care		Addressing racism and discrimination	Empowering and providing opportunities in decision making	Column total
	Creating culturally responsive services and policies	Improving culturally competent skills of health professionals	Developing partnerships and building trust with community	Creating culturally appropriate health messaging, (including education on New Zealand's health system)	Using ethnic-specific diagnostic tools and criteria	Improving ethnic/group-specific data collection, reporting	Foster growth of ethnic workforce	Addressing hardship in employment	Creating culturally safe workspaces	Whole-of-government or population health approach	Improving information sharing between services			
Addiction services	• (3)		• (1)	• (2)			• (1)			• (1)	• (2)	• (1)		11
Antenatal services				• (1)										1
Cervical/ breast screening service		• (2)		• (2)										4
COVID-19 services	• (1)		• (1)	• (2)		• (1)				• (2)				7
Cultural case workers							• (2)	• (1)						3

Table 3 (continued): Summary of recommendations for health service improvements.

Dementia care services	• (1)	• (1)	• (1)	• (1)										4
Diabetes and cardiovascular disease services	• (1)			• (4)	• (2)									7
Disability care services	• (2)	• (1)	• (3)	• (1)										7
Elderly care services										• (2)				2
Electronic health records						• (1)								1
Family planning, contraception services	• (1)			• (2)										3
Family violence prevention services			• (3)	• (2)		• (1)				• (2)			• (2)	10
General practice/primary health organisation services	• (3)	• (4)				• (2)					• (2)			11

Table 3 (continued): Summary of recommendations for health service improvements.

Health services overall	• (5)	• (1)		• (1)		• (2)	• (2)			• (2)	• (2)		• (1)	16
Hearing-care services	• (1)													1
HIV/AIDs prevention services	• (4)	• (2)	• (1)	• (4)									• (1)	12
Hospitals								• (1)						1
Mental health and psychological services	• (14)	• (9)	• (4)	• (8)		• (2)	• (2)	• (1)		• (1)	• (2)			43
Nursing services								• (1)	• (1)			• (1)		3
Nutrition and dietetic services	• (5)			• (2)										7
Oral health services	• (1)			• (1)										2
Paediatric services			• (1)	• (2)			• (1)			• (1)				5
Palliative, hospice, advanced care services	• (2)	• (1)	• (1)	• (1)									• (1)	6

Table 3 (continued): Summary of recommendations for health service improvements.

Physical activity and wellbeing services	• (1)		• (3)									• (1)	5	
Primary healthcare and health promotion services			• (5)	• (2)									7	
Refugee health services	• (6)	• (5)		• (2)		• (1)				• (7)		• (1)	22	
Sexual violence prevention services		• (1)	• (1)	• (1)						• (1)		• (1)	• (2)	7
Stroke care services		• (1)											1	
Suicide prevention services										• (1)	• (1)		• (1)	3
Tuberculosis care services										• (1)			1	
Ultrasound services					• (1)								1	

Table 3 (continued): Summary of recommendations for health service improvements.

Women's health (violence, female genital mutilation, period poverty)	• (10)									• (1)				11
Youth health services	• (3)	• (1)		• (2)		• (2)				• (1)			• (1)	10
Row total	64	29	25	43	3	12	8	3	2	23	9	4	10	

Note: numbers in brackets refer to total recommendations per cell.