## **Abstract of Master's Dissertation**

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Course	International Health Development (MPH)	Name	KYAW THU	
Thesis Title	Determinants of safe stool disposal among children under five years in Myanmar and its association with childhood diarrhoea: Secondary analysis of Myanmar Demographic and Health Survey 2015-2016			

**Background:** Proper child stool disposal is crucial to prevent the spread of faecal-oral diseases. However, in Myanmar, people allegedly believe children's stools are not hazardous, overlook managing them, and there are no studies regarding child stool disposal. Therefore, this study aimed to explore the determinants of safe stool disposal among children under five years in Myanmar and the association between safe stool disposal and childhood diarrhoea.

**Objectives:** Two specific objectives of the study were to identify the factors associated with safe stool disposal and to investigate the association between safe stool disposal and childhood diarrhoea among children under five years in Myanmar.

**Methods:** With the authorization of the DHS program, using the Myanmar Demographic and Health Survey (2015-2016) dataset, this analysis was conducted among 3498 children under five years living with their mothers. Univariable and multivariable logistic regressions were employed in STATA to determine the factors associated with safe stool disposal and the association between safe stool disposal and childhood diarrhoea.

**Results:** The proportion of safe stool disposal among children was 62.44% (95%CI:60.29-64.58). Among children who practised safe stool disposal, 9.42% (95%CI:7.94-11.14) and 12.37% (95%CI:10.38-14.68) of children who practised unsafe stool disposal got diarrhoea. Multivariable analysis for stool disposal revealed that children whose mothers were aged 15-24 (AOR:0.68, 95%CI:0.52-0.88) and uneducated (AOR:0.65, 95%CI:0.47-0.89) and children aged 0-5 months (AOR:0.18, 95%CI:0.12-0.26), 6-23 months (AOR:0.42, 95%CI:0.34-0.53), breastfeeding children (AOR:0.50, 95%CI:0.40-0.62) and children who were from rural areas (AOR:0.72, 95%CI:0.56-0.94), coastal zones (AOR:0.29, 95%CI:0.21-0.41), hilly or mountainous regions (AOR:0.55, 95%CI:0.41-0.74), dry zones (AOR:0.52, 95%CI:0.39-0.68), poor families (AOR:0.73, 95%CI:0.58-0.93), families using unimproved toilets (AOR:0.75, 95%CI:0.62-0.93), families with lack of water at handwashing places or no handwashing places (AOR:0.68, 95%CI:0.50-0.93) and large families (AOR:0.82, 95%CI:0.68-0.93) were less likely to practise safe stool disposal.

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Multivariable analysis for diarrhoea ascertained that children who practised safe stool disposal					
were less likely to develop diarrhoea (AOR:0.56, 95%CI:0.36-0.89), and the odds of diarrhoea					
were higher among children who were aged 6-23 months (AOR:2.43, 95%CI:1.48-4.00),					
children whose mothers were working (AOR:1.44, 95%CI:1.07-1.95), children who were from					
hilly or mountainous areas (AOR:1.80, 95%CI:1.21-2.69), poor families (AOR:1.46,					
95%CI:1.08-1.97), families using piped water or rainwater (AOR:1.67, 95%CI:1.04-2.69),					
families with only one child at home (AOR:1.60, 95%CI:1.16-2.20), and children whose well-					
being was decided by the mother or father alone (AOR:1.49, 95%CI:1.12-1.97). As safe stool					
disposal interacted with breastfeeding, among children who practised safe stool disposal,					
breastfeeding children had 2.05 odds of diarrhoea (95%CI:1.20-3.51), and non-breastfeeding					
children had 0.49 (95%CI:0.28-0.84).					
Conclusion: The individual factors significantly associated with safe stool disposal were					

**Conclusion:** The individual factors significantly associated with safe stool disposal were children under two, breastfeeding children, younger mothers, and uneducated mothers, while the contextual features were large families, unimproved toilets, lack of water at handwashing places or no handwashing places, rural areas, and geographical zones. Safe stool disposal was strongly associated with childhood diarrhoea. To promote safe stool disposal and reduce childhood diarrhoea, sanitation programs in Myanmar should pay attention to child stool disposal. Further longitudinal studies are recommended to determine the pathway and magnitude of the association between safe stool disposal and childhood diarrhoea.

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