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**ANTI-DIARRHOEAL EFFECTS OF PROBIOTICS ON CHILDREN**

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**Roll No.: 0115/ 12**

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Session: January-June, 2015

**A thesis submitted in the partial fulfillment of the requirements for the**

 **degree of Masters of Science in Applied Human Nutrition and Dietetics**

**Department of Applied Food Science and Nutrition**

**Faculty of Food Science and Technology**

**Chittagong Veterinary and Animal Sciences University**

**Chittagong-4225, Bangladesh**

**December, 2016**

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The author

December, 2016

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# List of abbreviations

AAD Antibiotic-associated diarrhoea

CI Confidence Interval

CFU Colony-forming unit

CKD Chronic kidney disease

FAO/WHO [Food and Agriculture Organization](http://www.fao.org/statistics/en/)

 /World Health Organization

GI Gastrointestinal Tracts

IBS Irritable bowel syndrome

ORS Oral Rehydration Solution

RDBPC Randomized, double-blind, placebo- controlled

RPC Randomized, placebo-controlled

RR Relative risk

SPSSStatistical Package for the Social Sciences

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**Summary**

Diarrheal disease is one of the major problems among under five years children in Bangladesh. Probiotics have been suggested to be use in acute diarrhoea.Several different probiotics are commercially available in our country. The objective of this experimental study was to assess the effects of probiotics among under five years of children suffering from diarrhoea. This study was conducted using probiotics with Oral Rehydration Solution (ORS) and oral rehydration solution (ORS) only which were given to the children for the treatment of acute diarrhoea. It was conducted using three probiotics named Probio, Enterogermina, TS6 and ORS only (control group) among one hundred and sixty under 5 years of children those were admitted to Chittagong Maa-Shishu General Hospital in Chittagong. Childrens were divided to group 1, received oral rehydration solution (ORS) only and group 2, group 3, group 4, received Probio, Enterogermina, TS6 probiotics with ORS respectively. The duration of diarrhoea and daily stool outputs of children were recorded on admission,during hospitalization. These study shows that three probiotics had significantly reduced the frequency of diarrhoea of children than ORS only. Three probiotics had significant or positive effect on children with acute diarrhoea results in shorter (P <0.001) duration of diarrhoea (hours).

**Keywords:** Diarrhoeal diseases, Children, Probiotics, Oral Rehydration Solution

 (ORS) .

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