







INTERNATIONAL MULTI-AWARD WINNING INSTITUTION FOR SUSTAINABILITY

IUM RESEARCH 20 INNOVATION DAY 24

LEADING THE RESEARCH, PUBLICATION AND INNOVATION CULTURE: SOARING HIGH IN RESEARCH EXCELLENCE

TUESDAY | 2ND JULY 2024 | 25 ZULHIJJAH 1445 H

GRAND HALL, OFFICE OF CAMPUS DIRECTOR, INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA, KUANTAN



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ORGANISER: RESEARCH MANAGEMENT CENTRE, IIUM The IIUM Research and Innovation Day (IRID) 2024 is a prominent exhibition dedicated to health and sciences research, organized to showcase innovative research findings and foster research collaboration among scholars from the International Islamic University Malaysia (IIUM) and across Malaysia. This year's theme, **"LEADING THE RESEARCH, PUBLICATION AND INNOVATION CULTURE: SOARING HIGH IN RESEARCH EXCELLENCE,"** emphasizes the significance of publishing research outcomes to spread knowledge for humanity's benefit. The event is a joint effort with the Technology Transfer Office of the Research Management Centre, highlighting the potential for research projects to be selected for commercialization.

It offers a platform for interactive poster presentations, discussions, and the exhibition of creative innovations. The program aims to provide constructive feedback, facilitate the sharing of ideas, and encourage networking among researchers. **All submitted abstracts will be published in selected IIUM journals (MYCITE – indexed)** with awards for the best research and innovation in both student and staff categories. Participants are also encouraged to publish full articles in various IIUM journals. This initiative seeks to benefit attendees greatly, promoting experience sharing and the development of lasting relationships within the research community.

The objectives of the IRID 2024 are as follows:

- To identify the prominent researchers in Malaysia mainly IIUM Kuantan.
- To inculcate research culture among academic staff and students (postgraduate and undergraduate).
- To showcase the research findings and products of academic staff and students.
- To encourage inter Kulliyyah/ Universities/ Institutions collaboration in research and innovation.
- To identify the best research outputs and products to represent IIUM at national and international competition.

The topics are

- 1. Basic Health Sciences
- 2. Applied Health Sciences
- 3. Medical & Health Sciences
- 4. Nursing & Midwifery
- 5. Pharmacy
- 6. Dentistry
- 7. Engineering
- 8. Biological Sciences
- 9. Art & Social Sciences



Bismillahirrahmanirrahim.

Assalamualaikum warahmatullah wabarakatuh.

Alhamdulillah, it gives me great pleasure to welcome you to IIUM Research and Innovation Day IRID 2024: An Exhibition for Health and Sciences Research. This programme aims to showcase innovative research findings and encourage research collaboration among researchers from IIUM and also around Malaysia.

The theme for this year's event is LEADING THE RESEARCH, PUBLICATION AND INNOVATION CULTURE: SOARING HIGH IN RESEARCH EXCELLENCE.

We want to highlight again the importance of publishing research results as a way to disseminate knowledge for the benefit of mankind.

This year's program is a collaboration with the Technology Transfer Office of the Research Management Centre. Your research has the potential to be selected as a potential research product for commercialisation.

The poster presentation will allow interaction and discussion among researchers. We also invite researchers who have creative innovations to showcase their products at this event.

I hope this event will serve as a good platform for you to receive constructive feedback, share ideas and spark friendships with other researchers.

All submitted abstracts will be published in selected IIUM journals (MYCITE – indexed), and awards will be given for best research and innovation among the students and staff categories. Participants are also invited to publish their research as full articles in IIUM journals.

I hope everyone benefits greatly from this event; I am looking forward to knowing you, sharing our experiences and building a lasting relationship together.

Thank you.



IIUM Research and Innovation Day (IRID) 2024 2nd July 2024 (Tuesday) Grand Hall, Office of the Campus Director International Islamic University Malaysia (Kuantan Campus)

Program Schedule

Time	Event
8.30 am	Registration of participants
8.45 am	Arrival of VIP and Guests
9.00 am	Negaraku, Pahang Song, IIUM Song
9.05 am	Recitation of Dua
9.10 am	Opening remarks Prof. Dr. Nazri Mohd. Yusof Chairman IIUM Research and Innovation Day 2024
9.15 am	Officiating Speech & Officiating Ceremony Gimmick YB Dato' Mohamad Nizar Bin Dato' Sri Mohamad Najib, DSAP Pahang State Executive Councillor (EXCO) Investment, Industrial Development, Science, Technology and Innovation
9.25 am	Token of appreciation for external guest
9.35 am	Video Presentation Group photo
9.40am	VIP visit the poster exhibitions and showcase
10.00 am	Refreshments for VIPs and Invited guests
10.30 am	Commercialization Talk 1 Prof. Dr. Mohd Shahir Shamsir Omar (Universiti Teknologi Malaysia, UTM) Title: "From Discovery to Disruption: Transforming Research into Start-up Success"
11.15 am	Poster evaluations
1.15 pm	Lunch break
2.00 pm	Poster evaluations continues
3.00 pm	Commercialization Talk 2 Madam Mariatini Othman (Senior Vice President, Technology Advisory Services MTDC) Title: "Unlocking Opportunities: The Dynamics of Commercialization Ecosystems"
3.00 pm	Scientific Research Meeting
4.00 pm	Announcement of Winners for best participants
4.15 pm	Prize giving ceremony and closing remarks Prof. Dr. Nazri Mohd. Yusof Chairman IIUM Research and Innovation Day 2024
5.00 pm	End of program and adjourn

One Stop Research Clinics by HUM Gombak

- 1. Grant Initiative Unit (GIU)
- 2. Grant Management Unit (GMU)
- 3. Research Excellent Unit (REU)
- 4. Technology Transfer Office (TTO)
- 5. Copyright and MyRA Publication (Dar Al-Hikmah Library)

As of 24/6/2024

Effects Of Sugar-Free Chewing Gum in Patients Wearing Orthodontic Intermaxillary Elastic: A Preliminary Study

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PURPOSE: To investigate the effects of sugar-free chewing gum in minimizing orthodontic pain, use of analgesic medications, appliance breakages and elastic dislodgement associated with intermaxillary elastics wear.

METHODS: This was a randomized controlled trial with 1:1 allocation ratio. 28 patients were randomly allocated to sugar-free chewing gum (CG) and non-chewing gum (NG) groups. Patients in the CG were instructed to chew sugar-free gum for 5 minutes immediately after orthodontic intermaxillary elastics wear and then at 12-h intervals for 3 days. All patients were allowed to take analgesics. Pain score was recorded using a visual analogue scale at all eight time-points, including baseline score, along with any use of analgesics, appliance breakages and elastics dislodgement. Data were evaluated using independent t-test, Mann Whitney U test, one-way repeated measures ANOVA and Chi Square test.

RESULTS: The pain scores were significantly lower in the CG compared to the NG at 24, 48, 60, and 72 hours after elastic wear. Analysis using one-way repeated measures ANOVA showed that there were statistically significant differences in the grand mean pain scores between the two groups (p = 0.005), with the CG having significantly lower pain scores (1.50) compared to the NG (3.2). However, no significant differences were found between the groups across all the time intervals (p = 0.262). Furthermore, no significant associations were observed between the groups regarding analgesic uptake, appliance breakages, and elastic dislodgement.

CONCLUSION: The use of sugar-free chewing gum may reduce orthodontic pain associated with intermaxillary elastics wear and no evidence that chewing gum increased the incidence of appliance breakages and elastic dislodgement.

Keywords: Orthodontics, Pain, Chewing gum