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Poster Abstracts
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Prevalence and associated risk factors of dry eye disease among optometry students in Ireland

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Purpose: To determine the prevalence and associated risk factors of dry eye disease (DED) among optometry students in Ireland.
Method: A cross-sectional study was conducted among optometry students at Technological University Dublin between 6–23 October 2025. Sixty-four participants (median age 21 years, range 18–35; 83% female) completed the validated Ocular Surface Disease Index (OSDI-6) questionnaire, and underwent non-invasive tear break-up time (NIBUT), fluorescein staining, and Schirmer I testing. DED was defined according to TFOS DEWS III criteria: positive symptoms (OSDI-6 ≥4) plus one homeostasis marker (NIBUT <10 s or >5 corneal staining spots). Participants also completed a survey on potential risk factors, including screen time, outdoor activity, and sleep duration.
Results: DED prevalence based on TFOS DEWS III criteria was 34.4% (95% CI: 22.4–46.3%). NIBUT was lower in the DED group but not significantly different (4.37 ± 3.00 s vs 6.23 ± 5.37 s, p=0.10). Within the dry eye group, 31.8% of participants were found to have an aqueous deficient element to their dry eye. No significant associations were found between DED and sex (p=0.081), screen time (p=0.68), outdoor time (p=0.086), or sleep duration (p=0.78). Notably, 57.8% of participants exhibited ocular surface signs (reduced NIBUT or staining) despite being asymptomatic.
Conclusions: The prevalence of DED among Irish optometry students aligns with international reports. The high occurrence of ocular surface signs without symptoms may indicate early homeostatic imbalance preceding symptomatic DED. These findings highlight the importance of early screening, ocular surface education, and preventive interventions within student populations.

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